DRAFT

REMEDIAL INVESTIGATION

REPORT
VOLUME IV

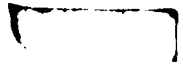
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

PREPARED BY:

LEGGETTE, BRASHEARS & GRAHAM, INC.

APRIL 1990
(REVISED AUGUST 1992)

APPENDIX 4



APPENDIX 4

Results of Data Validation

TCL VOLATILE ORGANICS

Lot 1

Continuing calibration runs for 2-butanone and vinyl acetate were out of control, therefore these data were rejected.

Methylene chloride, carbon disulfide, toluene, styrene, and xylenes were detected in field blanks, trip blanks, and laboratory blanks, therefore these data were rejected.

All results for trichlorofluoromethane are rejected because it was detected in two field blanks. 1,1,2-trichloro-1,2,2-trifluoroethane was detected in all samples and blanks, therefore the results were rejected.

All positive results were considered estimated.

Samples were analyzed within 10 days of receipt.

Lot 2

Continuing calibration runs for 2-butanone, were not stable, therefore these data were rejected.

Methylene chloride and acetone were detected in field blanks and laboratory blanks, therefore the data was rejected.

The TIC R-113 is a common refrigerant gas and was detected in most samples, therefore this TIC was rejected.

All positive results have been qualified as estimated.

Samples were analyzed within 10 days of receipt.

Lot 3

Continuing calibration runs for 2-butanone were not stable, therefore this data was rejected. Methylene chloride and acetone were detected in field blanks and laboratory blanks, therefore the data was rejected.

The TIC R-113 and R-11 are common refrigeration gases, therefore these TICs are rejected.

All positive results are qualified as estimated for Well J (75 to 77 feet), Well P-1 (0 to 2 feet, 12 to 14 feet, 45 to 47 feet, 50 to 52 feet), Well N-1 (0 to 12 feet), Well K (0 to 2 feet), Well K (10 to 12 feet), Well K (50 to 52 feet), and Well K (0 to 2 feet) (D).

Samples were analyzed within 10 days of receipt.

Lot 4

Continuous calibration runs for 2-butanone were not stable, therefore this data was rejected. Methylene chloride and acetone results were rejected because they were detected in field blanks and laboratory blanks.

The TIC R-113 is rejected because it is a common refrigerator gas and was found in most samples.

All positive results were qualified as estimated.

Samples were analyzed within 10 days of receipt.

Lot 5

Continuous calibration runs for 2-butanone were not stable, therefore this data was rejected. Methylene chloride and acetone were detected in field blanks and laboratory blanks, therefore these data were rejected.

The TIC R-113 is a common refrigerator gas and was detected in most samples, therefore the data was rejected.

All positive results were qualified as estimated.

Samples were analyzed within 10 days of receipt.

Lot 6

Continuous calibration runs for 2-butanone were not stable, therefore this data was rejected. Methylene chloride and acetone were detected in field blanks and laboratory blanks, therefore these data were rejected.

The TIC R-113 is a common refrigerator gas and was detected in most samples, therefore the data was rejected.

All positive results were qualified as estimated for TB-44 (50 to 52 feet), T-1 (0 to 2 feet, 10 to 12 feet, 50 to 52 feet) and Well S (50 to 52 feet).

Samples were analyzed within 10 days of receipt.

Lot 7

Continuous calibration runs for 2-butanone were not stable, therefore this data was rejected. Methylene chloride and acetone were detected in field blanks and laboratory blanks, therefore these data were rejected.

The TIC R-113 is a common refrigerator gas and was detected in most samples, therefore the data was rejected.

All positive results for the following compounds were qualified as estimated:

Chloromethane
Bromomethane
Vinyl Chloride
Chloroethane
Methylene Chloride
Acetone
Carbon Disulfide
1,1-Dichloroethene
1,1-Dichloroethane
1,2-Dichloroethene (total)
Chloroform
1,2-Dichloroethane
2-Butanone
1,1,1-Trichloroethane
Carbon Tetrachloride
Vinyl Acetate

Samples were analyzed within 10 days of receipt.

Lot 8

Continuous calibration runs for 2-butanone were not stable, therefore this data was rejected. Methylene chloride and acetone were detected in field blanks and laboratory blanks, therefore these data were rejected.

The TIC R-113 is a common refrigerator gas and was detected in most samples, therefore the data was rejected.

All positive results were qualified as estimated.

Samples were analyzed within 10 days of receipt.

Lot 9

Continuous calibration runs for 2-butanone were not stable, therefore this data was rejected. Methylene chloride and acetone were detected in field blanks and laboratory blanks, therefore these data were rejected.

The TIC R-113 is a common refrigerator gas and was detected in most samples, therefore the data was rejected.

All positive results were qualified as estimated for S-1, S-1 (D) and Outfall Sump 1.

Samples were analyzed within 10 days of receipt.

Lot 10

Continuous calibration runs for 2-butanone were not stable, therefore this data was rejected. Methylene chloride and acetone were detected in field blanks and laboratory blanks, therefore these data were rejected.

The TIC R-113 is a common refrigerator gas and was detected in most samples, therefore the data was rejected.

All positive results were qualified as estimated for FB 10/18, FB 10/18, TB 10/18, TB-29 (0 to 2 feet, 6 to 8 feet, 6 to 8 feet, 8 to 10 feet), TB-28 (0 to 2 feet, 6 to 8 feet, 8 to 10 feet), Well I (0 to 2 feet, 10 to 12 feet, 50 to 52 feet, 50 to 52 feet), FB 10/19, FB 10/19, TB 10/19, TB-30 (0 to 2 feet, 6 to 8 feet, 8 to 10 feet), TB-31 (0 to 2 feet, 6 to 8 feet, 8 to 10 feet), FB 10/20, FB 10/20, TB 10/20, TB-32 (0 to 2 feet, 4 to 6 feet, 8 to 10 feet).

Samples were analyzed within 10 days of receipt.

Lot 11

Continuous calibration runs for 2-butanone were not stable, therefore this data was rejected. Methylene chloride and acetone were detected in field blanks and laboratory blanks, therefore these data were rejected.

The TIC R-113 is a common refrigerator gas and was detected in most samples, therefore the data was rejected.

All positive results were qualified as estimated for TB-01 (0 to 2 feet, 3 to 5 feet), TB-02 (0 to 2 feet, 3 to 5 feet), TB-03 (9 to 11 feet, 13 to 15 feet), TB-04 (7 to 9 feet, 7 to 9 feet, 13 to 15 feet), TB-05 (19 to 21 feet), TB-05 (27 to 29 feet), FB 10/4, FB 10/4, TB 10/4, TB-06 (9 to 11 feet), TB-06 (13 to 15 feet), TB-07 (9 to 11 feet), TB-08 (0 to 2 feet), TB-08 (3 to 5 feet), TB-08 (3 to 5 feet), TB-10 (0 to 2 feet), TB-10 (3 to 5 feet), and 10/5 FB, FB, TB.

Samples were analyzed within 10 days of receipt.

Lot 12

Continuous calibration runs for 2-butanone were not stable, therefore this data was rejected. Methylene chloride and acetone were detected in field blanks and laboratory blanks, therefore these data were rejected.

The TIC R-113 is a common refrigerator gas and was detected in most samples, therefore the data was rejected.

Samples were analyzed within 10 days of receipt.

Lot 13

Continuous calibration runs for 2-butanone were not stable, therefore this data was rejected. Methylene chloride and acetone were detected in field blanks and laboratory blanks, therefore these data were rejected.

The TIC R-113 is a common refrigerator gas and was detected in most samples, therefore the data was rejected.

All positive results were qualified as estimated except for H-1 (50 to 52 feet), TB-19 (6 to 8 feet), TB-19 (30 to 32 feet), TB-20 (0 to 2 feet, 10 to 12 feet, 30 to 32 feet).

Samples were analyzed within 10 days of receipt.

Lot 14

Continuous calibration runs for 2-butanone were not stable, therefore this data was rejected. Methylene chloride and acetone were detected in field blanks and laboratory blanks, therefore these data were rejected.

The TIC R-113 is a common refrigerator gas and was detected in most samples, therefore the data was rejected.

All positive results were qualified as estimated.

Samples were analyzed within 10 days of receipt.

Lot 15

Continuous calibration runs for 2-butanone were not stable, therefore this data was rejected. Methylene chloride and acetone were detected in field blanks and laboratory blanks, therefore these data were rejected.

The TIC R-113 is a common refrigerator gas and was detected in most samples, therefore the data was rejected.

All positive results were qualified as estimated.

Samples were analyzed within 10 days of receipt.

dmt
April 3, 1990
voasum.wpf/occ90

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Volatile Organics Lot 1

Sample location	Depth (feet below grade)	Sample date	Matrix
Pilot Hole G	0 - 2	09-28-89	Soil
Pilot Hole G	10 - 12	09-28-89	Soil
Well G-1	50 - 52	09-29-89	Soil
Field Blank	NA	09-28-89	Water
Field Blank	NA	09-28-89	Water
Field Blank	NA	09-29-89	Water
Field Blank	NA	09-29-89	Water
Trip Blank	NA	09-29-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Volatile Organics Lot 2

Sample location	Depth (feet below grade)	Sample date	Matrix
Pilot Hole I	110 - 112	10-23-89	Soil
TB-36	3 - 5	10-23-89	Soil
TB-37	7 - 9	10-23-89	Soil
TB-37	9 - 11	10-23-89	Soil
TB-38	9 - 11	10-23-89	Soil
TB-38	11 - 13	10-23-89	Soil
TB-39	0 - 2	10-24-89	Soil
TB-39	0 - 2	10-24-89	Soil
TB-39	3 - 5	10-24-89	Soil
TB-40	0 - 2	10-24-89	Soil
TB-40	3 - 5	10-24-89	Soil
TB-33	0 - 2	10-24-89	Soil
TB-33	4 - 6	10-24-89	Soil
TB-33	8 - 10	10-24-89	Soil
Well Q-1	0 - 2	10-24-89	Soil
Well Q-1	10 - 12	10-24-89	Soil
Field Blank	NA	10-23-89	Water
Field Blank	NA	10-23-89	Water
Field Blank	NA	10-24-89	Water
Field Blank	NA	10-24-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Volatile Organics Lot 2
(continued)

Sample location	Depth (feet below grade)	Sample date	Matrix
Field Blank	NA	10-25-89	Water
Field Blank	NA	10-25-89	Water
Trip Blank	NA	10-23-89	Water
Trip Blank	NA	10-24-89	Water
Trip Blank	NA	10-25-89	Water
Water Blank	NA	10-25-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Volatile Organics Lot 3

Sample location	Depth (feet below grade)	Sample date	Matrix
Pilot Hole J	75 - 77	10-26-89	Soil
Well P-1	0 - 2	10-30-89	Soil
Well P-1	12 - 14	10-30-89	Soil
Well P-1	45 - 47	10-30-89	Soil
Well P-1	50 - 52	10-30-89	Soil
Well O-1	0 - 2	11-01-89	Soil
Well O-1	10 - 12	11-01-89	Soil
Well O-1	10 - 12	11-01-89	Soil
Well O-1	50 - 52	11-01-89	Soil
TB P-1	40 - 42	11-02-89	Soil
TB P-1	55 - 57	11-02-89	Soil
Well N-1	0 - 2	11-06-89	Soil
Well N-1	10 - 12	11-06-89	Soil
Well N-1	50 - 52	11-06-89	Soil
Pilot Hole K	0 - 2	11-06-89	Soil
Pilot Hole K	10 - 12	11-06-89	Soil
Pilot Hole K	50 - 52	11-06-89	Soil
Field Blank	NA	10-26-89	Water
Field Blank	NA	10-26-89	Water
Field Blank	NA	11-01-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Volatile Organics Lot 3
(continued)

Sample location	Depth (feet below grade)	Sample date	Matrix
Field Blank	NA	11-01-89	Water
Field Blank	NA	11-02-89	Water
Field Blank	NA	11-02-89	Water
Field Blank	NA	11-06-89	Water
Field Blank	NA	11-06-89	Water
Trip Blank	NA	10-26-89	Water
Trip Blank	NA	11-01-89	Water
Trip Blank	NA	11-02-89	Water
Trip Blank	NA	11-06-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Volatile Organics Lot 4

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-42	45 - 47	11-17-89	Soil
TB-43	30 - 32	11-20-89	Soil
TB-45	55 - 57	11-22-89	Soil
TB-46	40 - 42	11-27-89	Soil
TB-47	55 - 57	11-27-89	Soil
Field Blank	NA	11-17-89	Water
Field Blank	NA	11-20-89	Water
Field Blank	NA	11-22-89	Water
Field Blank	NA	11-27-89	Water
Trip Blank	NA	11-17-89	Water
Trip Blank	NA	11-20-89	Water
Trip Blank	NA	11-22-89	Water
Trip Blank	NA	11-27-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Volatile Organics Lot 5

Sample location	Depth (feet below grade)	Sample date	Matrix
Well R-1	0 - 2	11-07-89	Soil
Well R-1	50 - 52	11-07-89	Soil
TB-41	10 - 12	11-08-89	Soil
Pilot Hole K	135 - 137	11-08-89	Soil
Pilot Hole L	0 - 2	11-13-89	Soil
Pilot Hole L	10 - 12	11-13-89	Soil
Pilot Hole L	50 - 52	11-13-89	Soil
Field Blank	NA	11-07-89	Water
Field Blank	NA	11-07-89	Water
Field Blank	NA	11-08-89	Water
Field Blank	NA	11-08-89	Water
Field Blank	NA	11-13-89	Water
Field Blank	NA	11-13-89	Water
Trip Blank	NA	11-07-89	Water
Trip Blank	NA	11-08-89	Water
Trip Blank	NA	11-13-89	Water
Water Blank	NA	11-13-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Volatile Organics Lot 6

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-44	50 - 52	11-21-89	Soil
Pilot Hole T	0 - 2	11-21-89	Soil
Pilot Hole T	10 - 12	11-21-89	Soil
Pilot Hole T	50 - 52	11-21-89	Soil
Pile B	1 - 3	11-30-89	Soil
Pile D and G	1 - 3	11-30-89	Soil
Field Blank	NA	11-21-89	Water
Field Blank	NA	11-21-89	Water
Field Blank	NA	11-30-89	Water
Field Blank	NA	11-30-89	Water
Field Blank	NA	12-04-89	Water
Field Blank	NA	12-04-89	Water
Field Blank	NA	12-05-89	Water
Field Blank	NA	12-05-89	Water
Trip Blank	NA	11-21-89	Water
Trip Blank	NA	11-30-89	Water
Trip Blank	NA	12-04-89	Water
Trip Blank	NA	12-05-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Volatile Organics Lot 7

Sample location	Depth (feet below grade)	Sample date	Matrix
Well B-1	NA	01-15-90	Water
Well B-2	NA	01-15-90	Water
Well G-1	NA	01-15-90	Water
Well D-1	NA	01-15-90	Water
Well C-1	NA	01-16-90	Water
Well C-2	NA	01-16-90	Water
Well D-2	NA	01-17-90	Water
Well E-1	NA	01-16-90	Water
Well E-2	NA	01-16-90	Water
Well I-1	NA	01-17-90	Water
Well I-2	NA	01-17-90	Water
Well I-1	NA	01-17-90	Water
Field Blank	NA	01-15-90	Water
Field Blank	NA	01-16-90	Water
Field Blank	NA	01-17-90	Water
Trip Blank	NA	01-15-90	Water
Trip Blank	NA	01-16-90	Water
Trip Blank	NA	01-17-90	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Volatile Organics Lot 8

Sample location	Depth (feet below grade)	Sample date	Matrix
Well F-2	NA	01-18-90	Water
Well F-1	NA	01-18-90	Water
Well J-2	NA	01-18-90	Water
Well G-2	NA	01-22-90	Water
Well Q-1	NA	01-22-90	Water
Well M-1	NA	01-22-90	Water
Well N-1	NA	01-22-90	Water
Well H-2	NA	01-23-90	Water
Well H-1	NA	01-23-90	Water
Well H-1	NA	01-23-90	Water
Well J-1	NA	01-23-90	Water
Well O-1	NA	01-23-90	Water
Well N10812	NA	01-24-90	Water
Well N10598	NA	01-24-90	Water
Well N10593	NA	01-24-90	Water
Well R-1	NA	01-25-90	Water
Well A-1	NA	01-25-90	Water
Well A-2	NA	01-25-90	Water
Field Blank	NA	01-18-90	Water
Field Blank	NA	01-22-90	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Volatile Organics Lot 8
(continued)

Sample location	Depth (feet below grade)	Sample date	Matrix
Field Blank	NA	01-23-90	Water
Field Blank	NA	01-24-90	Water
Field Blank	NA	01-25-90	Water
Trip Blank	NA	01-18-90	Water
Trip Blank	NA	01-22-90	Water
Trip Blank	NA	01-23-90	Water
Trip Blank	NA	01-24-90	Water
Trip Blank	NA	01-25-90	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Volatile Organics Lot 9

Sample location	Depth (feet below grade)	Sample date	Matrix
Well P-1	NA	01-30-90	Water
Well T-2	NA	01-30-90	Water
Well T-2	NA	01-30-90	Water
Well T-1	NA	01-30-90	Water
Surface Water 1	NA	01-29-90	Water
Surface Water 3	NA	01-29-90	Water
Well N10594	NA	02-02-90	Water
Well S-2	NA	02-01-90	Water
Well L-1	NA	02-01-90	Water
Well L-2	NA	02-01-90	Water
Well K-1	NA	02-02-90	Water
Well K-2	NA	02-02-90	Water
Well S-1	NA	02-13-90	Water
Well S-1	NA	02-13-90	Water
Outfall	NA	02-13-90	Water
Field Blank	NA	01-30-90	Water
Field Blank	NA	02-01-90	Water
Field Blank	NA	02-02-90	Water
Field Blank	NA	02-13-90	Water
Trip Blank	NA	01-30-90	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Volatile Organics Lot 9
(continued)

Sample location	Depth (feet below grade)	Sample date	Matrix
Trip Blank	NA	01-29-90	Water
Trip Blank	NA	02-01-90	Water
Trip Blank	NA	02-02-90	Water
Trip Blank	NA	02-13-90	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Volatile Organics Lot 10

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-29	0 - 2	10-18-90	Soil
TB-29	6 - 8	10-18-90	Soil
TB-29	6 - 8	10-18-90	Soil
TB-29	8 - 10	10-18-90	Soil
TB-28	0 - 2	10-18-90	Soil
TB-28	6 - 8	10-18-90	Soil
TB-28	8 - 10	10-18-90	Soil
Pilot Hole I	0 - 2	10-18-90	Soil
Pilot Hole I	10 - 12	10-18-90	Soil
Pilot Hole I	50 - 52	10-19-90	Soil
Pilot Hole I	50 - 52	10-19-90	Soil
TB-30	0 - 2	10-19-90	Soil
TB-30	6 - 8	10-19-80	Soil
TB-30	8 - 10	10-19-90	Soil
TB-31	0 - 2	10-19-90	Soil
TB-31	6 - 8	10-19-90	Soil
TB-31	8 - 10	10-19-90	Soil
TB-32	0 - 2	10-20-90	Soil
TB-32	4 - 6	10-20-90	Soil
TB-32	4 - 6	10-20-90	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Volatile Organics Lot 10
(continued)

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-32	8 - 10	10-20-90	Soil
TB-34	1 - 3	10-23-90	Soil
TB-34	3 - 5	10-23-90	Soil
TB-35	1 - 3	10-23-90	Soil
TB-35	3 - 5	10-23-90	Soil
TB-36	1 - 3	10-23-90	Soil
Field Blank	NA	10-18-90	Water
Field Blank	NA	10-18-90	Water
Field Blank	NA	10-19-90	Water
Field Blank	NA	10-19-90	Water
Field Blank	NA	10-20-90	Water
Field Blank	NA	10-20-90	Water
Trip Blank	NA	10-18-90	Water
Trip Blank	NA	10-19-90	Water
Trip Blank	NA	10-20-90	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Volatile Organics Lot 11

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-01	0 - 2	10-03-89	Soil
TB-01	3 - 5	10-03-89	Soil
TB-02	0 - 2	10-03-89	Soil
TB-02	3 - 5	10-03-89	Soil
TB-03	9 - 11	10-03-89	Soil
TB-03	13 - 15	10-03-89	Soil
TB-04	7 - 9	10-03-89	Soil
TB-04	7 - 9	10-03-89	Soil
TB-04	13 - 15	10-03-89	Soil
TB-05	9 - 11	10-04-89	Soil
TB-05	19 - 21	10-04-89	Soil
TB-05	27 - 29	10-04-89	Soil
TB-06	9 - 11	10-05-89	Soil
TB-06	13 - 15	10-05-89	Soil
TB-07	9 - 11	10-05-89	Soil
TB-07	13 - 15	10-05-89	Soil
TB-08	0 - 2	10-05-89	Soil
TB-08	3 - 5	10-05-89	Soil
TB-08	3 - 5	10-05-89	Soil
TB-09	0 - 2	10-05-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Volatile Organics Lot 11
(continued)

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-09	3 - 5	10-05-89	Soil
TB-10	0 - 2	10-05-89	Soil
TB-10	3 - 5	10-05-89	Soil
Field Blank	NA	10-03-89	Water
Field Blank	NA	10-03-89	Water
Field Blank	NA	10-04-89	Water
Field Blank	NA	10-04-89	Water
Field Blank	NA	10-05-89	Water
Field Blank	NA	10-05-89	Water
Trip Blank	NA	10-03-89	Water
Trip Blank	NA	10-04-89	Water
Trip Blank	NA	10-05-89	Water
Water Blank	NA	10-03-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Volatile Organics Lot 12

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-11	0 - 2	10-06-89	Soil
TB-11	3 - 5	10-06-89	Soil
Pilot Hole H	0 - 2	10-06-89	Soil
Pilot Hole H	10 - 12	10-06-89	Soil
TB-12	0 - 2	10-06-89	Soil
TB-12	3 - 5	10-06-89	Soil
TB-12	3 - 5	10-06-89	Soil
TB-13	0 - 2	10-06-89	Soil
TB-13	3 - 5	10-06-89	Soil
TB-16	1 - 3	10-09-89	Soil
TB-14	1 - 3	10-09-89	Soil
TB-14	3 - 5	10-09-89	Soil
TB-15	1 - 3	10-09-89	Soil
TB-15	3 - 5	10-09-89	Soil
TB-16	3 - 5	10-09-89	Soil
TB-17	1 - 3	10-09-89	Soil
TB-17	3 - 5	10-09-89	Soil
TB-18	30 - 32	10-09-89	Soil
TB-18	30 - 32	10-09-89	Soil
TB-18	10 - 12	10-09-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Volatile Organics Lot 12
(continued)

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-18	20 - 22	10-09-89	Soil
Field Blank	NA	10-06-89	Water
Field Blank	NA	10-06-89	Water
Field Blank	NA	10-09-89	Water
Field Blank	NA	10-09-89	Water
Trip Blank	NA	10-06-89	Water
Trip Blank	NA	10-09-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Volatile Organics Lot 13

Sample location	Depth (feet below grade)	Sample date	Matrix
Well H-1	50 - 52	10-10-89	Soil
TB-19	6 - 8	10-10-89	Soil
TB-19	20 - 22	10-10-89	Soil
TB-19	30 - 32	10-10-89	Soil
TB-20	0 - 2	10-10-89	Soil
TB-20	10 - 12	10-10-89	Soil
TB-20	30 - 32	10-10-89	Soil
TB-21	30 - 32	10-11-89	Soil
TB-21	30 - 32	10-11-89	Soil
TB-21	0 - 2	10-11-89	Soil
TB-21	14 - 16	10-11-89	Soil
TB-22	10 - 12	10-11-89	Soil
TB-22	20 - 22	10-11-89	Soil
Field Blank	NA	10-10-89	Water
Field Blank	NA	10-10-89	Water
Field Blank	NA	10-11-89	Water
Field Blank	NA	10-11-89	Water
Trip Blank	NA	10-10-89	Water
Trip Blank	NA	10-11-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Volatile Organics Lot 14

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-22	30 - 32	10-12-89	Soil
TB-23	12 - 14	10-12-89	Soil
TB-23	30 - 32	10-12-89	Soil
TB-23	32 - 34	10-12-89	Soil
TB-23	34 - 36	10-12-89	Soil
TB-5A	45 - 47	10-16-89	Soil
TB-5A	45 - 47	10-16-89	Soil
TB-24	0 - 2	10-16-89	Soil
TB-24	3 - 5	10-16-89	Soil
TB-25	0 - 2	10-17-89	Soil
TB-25	3 - 5	10-17-89	Soil
TB-26	0 - 2	10-17-89	Soil
TB-26	3 - 5	10-17-89	Soil
TB-27	0 - 2	10-17-89	Soil
TB-27	3 - 5	10-17-89	Soil
Field Blank	NA	10-12-89	Water
Field Blank	NA	10-12-89	Water
Field Blank	NA	10-16-89	Water
Field Blank	NA	10-16-89	Water
Trip Blank	NA	10-16-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Volatile Organics Lot 15

Sample location	Depth (feet below grade)	Sample date	Matrix
Field Blank	NA	10-17-89	Water
Field Blank	NA	10-17-89	Water
Trip Blank	NA	10-17-89	Water
Casing Blank	NA	10-17-89	Water

TCL SEMI-VOLATILE ORGANICS

Lot 1

The method blanks contained bis(2-ethylhexyl) phthalate less than or equal to 3,000 ug/kg, and di-n-butyl phthalate and diethyl phthalate less than or equal to 1,000 ug/kg. Therefore, phthalate data below these levels have been rejected.

Lot 2

The method blanks contained bis(2-ethylhexyl) phthalate less than or equal to 3,000 ug/kg. Therefore, phthalate data below these levels have been rejected.

Lots 3, 4, 5 and 6

The method blanks contained bis(2-ethylhexyl) phthalate less than or equal to 3,000 ug/kg, and di-n-butyl phthalate and diethyl phthalate less than or equal to 1,000 ug/kg. Therefore, phthalate data below these levels have been rejected.

Lots 7, 8 and 9

The method blanks contained bis(2-ethylhexyl) phthalate less than or equal to 3,000 ug/kg, and di-n-butyl phthalate and diethyl phthalate less than or equal to 1,000 ug/kg. Therefore, phthalate data below these levels have been rejected.

Lots 10 and 11

The method blanks contained bis(2-ethylhexyl) phthalate less than or equal to 3,000 ug/kg, and di-n-butyl phthalate and diethyl phthalate less than or equal to 1,000 ug/kg. Therefore, phthalate data below these levels have been rejected.

Lots 12 and 13

The method blanks contained bis(2-ethylhexyl) phthalate less than or equal to 3,000 ug/kg, therefore phthalate data below these levels have been rejected.

Continuing calibration runs were out of limits, therefore positive values for di-n-butyl and bis(2-ethylhexyl) phthalates in TB-16 (3 to 5 feet) were qualified estimated.

Lots 14, 15, 16, 17, 18 and 19

The method blanks contained bis(2-ethylhexyl) phthalate less than or equal to 3,000 ug/kg, and di-n-butyl phthalate and diethyl phthalate less than or equal to 1,000 ug/kg. Therefore, phthalate data below these levels have been rejected.

Continuous calibrations were out of limits for di-n-butyl and bis(2-ethylhexyl) phthalates for TB-20 (0 to 2 feet, 10 to 12 feet, 30 to 32 feet) and TB-23 (12 to 14 feet, 30 to 32 feet, 32 to 34 feet, 34 to 36 feet), therefore all positive results were qualified estimated.

Positive results for TB-22 (30 to 32 feet) were qualified estimated because it was extracted 28 days outside holding time.

Lots 20, 21 and 22

The method blanks contained bis(2-ethylhexyl) phthalate less than or equal to 3,000 ug/kg, and di-n-butyl phthalate and diethyl phthalate less than or equal to 1,000 ug/kg. Therefore, phthalate data below these levels have been rejected. Continuous calibrations were out of limits for di-n-butyl and bis(2-ethylhexyl) phthalates for TB-25 (0 to 2 feet, 3 to 5 feet), TB-26 (0 to 2 feet, 3 to 5 feet), TB-27 (0 to 2 feet, 3 to 5 feet), therefore these data were qualified estimated.

Lot 23

The method blanks contained bis(2-ethylhexyl) phthalate less than or equal to 3,000 ug/kg, and di-n-butyl phthalate and diethyl phthalate less than or equal to 1,000 ug/kg. Therefore, phthalate data below these levels have been rejected. Continuous calibrations were out of limits for di-n-butyl and bis(2-ethylhexyl) phthalates for Well P-1 (40 to 42 feet, 55 to 57 feet), Well N-1 (0 to 2 feet, 10 to 12 feet, 50 to 52 feet), and Well K (0 to 2 feet, 10 to 12 feet), therefore these data were qualified estimated. Well O-1 (0 to 2 feet) and Well O-1 (10 to 12 feet) were extracted 21 days from data collection, therefore positive results were qualified estimated.

Lot 24

The method blanks contained bis(2-ethylhexyl) phthalate less than or equal to 3,000 ug/kg, therefore, phthalate data below these levels have been rejected.

Continuous calibrations were out of limits for di-n-butyl and bis(2-ethylhexyl) phthalates in Well K (135 to 137 feet), therefore these data were qualified estimated.

Lot 25

The method blanks contained bis(2-ethylhexyl) phthalate less than or equal to 3,000 ug/kg, and di-n-butyl phthalate, diethyl phthalate, di-n-octyl phthalate less than or equal to 1,000 ug/kg. Therefore, phthalate data below these levels have been rejected.

Lot 26

Method blanks and field blanks contained bis(2-ethylhexyl) phthalate, therefore results equal to or less than 300 ug/l are rejected.

One method and one field blank contained diethyl phthalate, therefore results equal to or less than 30 ug/l are rejected.

Continuous calibrations were out of limits, therefore all positive results for bis(2-ethylhexyl) and di-n-butyl phthalates were qualified estimated.

Lot 27

Method blanks and field blanks contained bis(2-ethylhexyl) phthalate, therefore results equal to or less than 150 ug/l are rejected.

Lot 28

Method blanks and field blanks contained bis(2-ethylhexyl) phthalate, therefore results equal to or less than 150 ug/l are rejected.

dmt
April 3, 1990
semsum.wpf/occ90

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Semi-Volatiles Lot 1

Sample location	Depth (feet below grade)	Sample date	Matrix
Shallow Well H-1	50 - 52	10-10-89	Soil
TB-19	6 - 8	10-10-89	Soil
TB-19	20 - 22	10-10-89	Soil
TB-19	30 - 32	10-10-89	Soil
TB-21	30 - 32	10-11-89	Soil
TB-21	30 - 32	10-11-89	Soil
TB-21	10 - 12	10-11-89	Soil
TB-21	14 - 16	10-11-89	Soil
TB-21	20 - 22	10-11-89	Soil

HKR 001 0/49

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Semi-Volatiles Lot 2

Sample location	Depth (feet below grade)	Sample date	Matrix
Pilot Well I	110 - 112	10-23-89	Soil
TB-36	3 - 5	10-23-89	Soil
TB-37	7 - 9	10-23-89	Soil
TB-37	9 - 11	10-23-89	Soil
TB-38	9 - 11	10-23-89	Soil
TB-38	11 - 13	10-23-89	Soil
TB-39	0 - 2	10-24-89	Soil
TB-39	0 - 2	10-24-89	Soil
TB-39	3 - 5	10-24-89	Soil
TB-40	0 - 2	10-24-89	Soil
TB-40	3 - 5	10-24-89	Soil
TB-33	0 - 2	10-24-89	Soil
TB-33	4 - 6	10-24-89	Soil
TB-33	8 - 10	10-24-89	Soil
Well Q-1	0 - 2	10-24-89	Soil
Well Q-1	50 - 52	10-25-89	Soil
Well M-1	0 - 2	10-26-89	Soil
Well M-1	10 - 12	10-26-89	Soil
Well M-1	10 - 12	10-26-89	Soil
Well M-1	50 - 52	10-26-89	Soil
Pilot Hole J	0 - 2	10-26-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Semi-Volatiles Lot 2
(continued)

Sample location	Depth (feet below grade)	Sample date	Matrix
Pilot Hole J	10 - 12	10-26-89	Soil
Pilot Hole J	50 - 52	10-26-89	Soil
Pilot Hole J	70 - 72	10-26-89	Soil
Field Blank	NA	10-23-89	Water
Field Blank	NA	10-23-89	Water
Field Blank	NA	10-24-89	Water
Field Blank	NA	10-24-89	Water
Field Blank	NA	10-25-89	Water
Field Blank	NA	10-25-89	Water
Potable Water Blank	NA	10-25-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Semi-Volatiles Lots 3, 4, 5 and 6

Sample location	Depth (feet below grade)	Sample date	Matrix
GP	0 - 2	09-28-89	Soil
GP	10 - 12	09-28-89	Soil
G-1	50 - 52	09-29-89	Soil
TB-01	0 - 2	10-03-89	Soil
TB-01	3 - 5	10-03-89	Soil
TB-02	0 - 2	10-03-89	Soil
TB-02	3 - 5	10-03-89	Soil
TB-03	9 - 11	10-03-89	Soil
TB-03	13 - 15	10-03-89	Soil
TB-04	7 - 9	10-03-89	Soil
TB-04	7 - 9	10-03-89	Soil
TB-04	13 - 15	10-03-89	Soil
Field Blank	NA	09-28-89	Water
Field Blank	NA	09-28-89	Water
Field Blank	NA	09-29-89	Water
Field Blank	NA	09-29-89	Water
Field Blank	NA	10-03-89	Water
Field Blank	NA	10-03-89	Water
Potable Water Blank	NA	10-03-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Semi-Volatiles Lots 7, 8 and 9

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-05	9 - 11	10-04-89	Soil
TB-05	19 - 21	10-04-89	Soil
TB-05	27 - 29	10-04-89	Soil
TB-06	9 - 11	10-05-89	Soil
TB-06	13 - 15	10-05-89	Soil
TB-07	9 - 11	10-05-89	Soil
TB-07	13 - 15	10-05-89	Soil
TB-08	0 - 2	10-05-89	Soil
TB-08	3 - 5	10-05-89	Soil
TB-08	3 - 5	10-05-89	Soil
TB-09	0 - 2	10-05-89	Soil
TB-09	3 - 5	10-05-89	Soil
TB-10	0 - 2	10-05-89	Soil
TB-10	3 - 5	10-05-89	Soil
Field Blank	NA	10-04-89	Water
Field Blank	NA	10-04-89	Water
Field Blank	NA	10-05-89	Water
Field Blank	NA	10-05-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Semi-Volatiles Lots 10 and 11

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-11	0 - 2	10-06-89	Soil
TB-11	3 - 5	10-06-89	Soil
Pilot Hole H	0 - 2	10-06-89	Soil
Pilot Hole H	10 - 12	10-06-89	Soil
TB-12	0 - 2	10-06-89	Soil
TB-12	3 - 5	10-06-89	Soil
TB-12	3 - 5	10-06-89	Soil
TB-13	0 - 2	10-06-89	Soil
TB-13	3 - 5	10-06-89	Soil
Field Blank	NA	10-06-89	Water
Field Blank	NA	10-06-89	Water
Field Blank	NA	10-09-89	Water
Field Blank	NA	10-09-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Semi-Volatiles Lots 12 and 13

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-12	0 - 2	10-06-89	Soil
TB-12	3 - 5	10-06-89	Soil
TB-12	3 - 5	10-06-89	Soil
TB-13	0 - 2	10-06-89	Soil
TB-13	3 - 5	10-06-89	Soil
TB-16	1 - 3	10-09-89	Soil
TB-14	1 - 3	10-09-89	Soil
TB-14	3 - 5	10-09-89	Soil
TB-15	1 - 3	10-09-89	Soil
TB-15	3 - 5	10-09-89	Soil
TB-16	3 - 5	10-09-89	Soil
TB-17	1 - 3	10-09-89	Soil
TB-17	3 - 5	10-09-89	Soil
TB-18	30 - 32	10-09-89	Soil
TB-18	30 - 32	10-09-89	Soil
TB-18	10 - 12	10-09-89	Soil
TB-18	20 - 22	10-09-89	Soil
Field Blank	NA	10-10-89	Water
Field Blank	NA	10-10-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Semi-Volatiles Lots 14, 15, 16, 17, 18 and 19

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-20	0 - 2	10-10-89	Soil
TB-20	10 - 12	10-10-89	Soil
TB-20	30 - 32	10-10-89	Soil
TB-21	0 - 2	10-11-89	Soil
TB-22	30 - 32	10-12-89	Soil
TB-23	12 - 14	10-12-89	Soil
TB-23	30 - 32	10-12-89	Soil
TB-23	32 - 34	10-12-89	Soil
TB-23	34 - 36	10-12-89	Soil
TB-5A	45 - 47	10-16-89	Soil
TB-5A	45 - 47	10-16-89	Soil
TB-24	0 - 2	10-16-89	Soil
TB-24	3 - 5	10-16-89	Soil
Field Blank	NA	10-11-89	Water
Field Blank	NA	10-11-89	Water
Field Blank	NA	10-12-89	Water
Field Blank	NA	10-12-89	Water
Field Blank	NA	10-16-89	Water
Field Blank	NA	10-16-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Semi-Volatiles Lots 20, 21 and 22

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-25	0 - 2	10-17-89	Soil
TB-25	3 - 5	10-17-89	Soil
TB-26	0 - 2	10-17-89	Soil
TB-26	3 - 5	10-17-89	Soil
TB-27	0 - 2	10-17-89	Soil
TB-27	3 - 5	10-17-89	Soil
TB-29	0 - 2	10-18-89	Soil
TB-29	6 - 8	10-18-89	Soil
TB-29	6 - 8	10-18-89	Soil
TB-29	8 - 10	10-18-89	Soil
TB-28	0 - 2	10-18-89	Soil
TB-28	6 - 8	10-18-89	Soil
TB-28	8 - 10	10-18-89	Soil
Pilot Hole I	0 - 2	10-18-89	Soil
Pilot Hole I	10 - 12	10-18-89	Soil
Pilot Hole I	50 - 52	10-19-89	Soil
Pilot Hole I	50 - 52	10-19-89	Soil
TB-30	0 - 2	10-19-89	Soil
TB-30	6 - 8	10-19-89	Soil
TB-30	8 - 10	10-19-89	Soil
TB-31	0 - 2	10-19-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Semi-Volatiles Lots 20, 21 and 22
(continued)

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-31	6 - 8	10-19-89	Soil
TB-31	8 - 10	10-19-89	Soil
TB-32	0 - 2	10-20-89	Soil
TB-32	4 - 6	10-20-89	Soil
TB-32	4 - 6	10-20-89	Soil
TB-32	8 - 10	10-20-89	Soil
TB-34	1 - 3	10-23-89	Soil
TB-34	3 - 5	10-23-89	Soil
TB-35	1 - 3	10-23-89	Soil
TB-35	3 - 5	10-23-89	Soil
TB-36	1 - 3	10-23-89	Soil
Field Blank	NA	10-17-89	Water
Field Blank	NA	10-17-89	Water
Field Blank	NA	10-18-89	Water
Field Blank	NA	10-18-89	Water
Field Blank	NA	10-19-89	Water
Field Blank	NA	10-19-89	Water
Field Blank	NA	10-20-89	Water
Field Blank	NA	10-20-89	Water
Casing Blank	NA	10-17-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Semi-Volatiles Lot 27
(continued)

Sample location	Depth (feet below grade)	Sample date	Matrix
Field Blank	NA	01-25-90	Water
Field Blank	NA	01-25-90	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Semi-Volatiles Lot 28

Sample location	Depth (feet below grade)	Sample date	Matrix
Sump 4 NW	NA	01-29-90	Water
Sump 4 SW	NA	01-29-90	Water
Sump 3 NW	NA	01-29-90	Water
P-1	NA	01-30-90	Water
T-2	NA	01-30-90	Water
T-2	NA	01-30-90	Water
T-1	NA	01-30-90	Water
N-10594	NA	02-02-90	Water
S-2	NA	02-01-90	Water
L-1	NA	02-01-90	Water
L-2	NA	02-01-90	Water
K-1	NA	02-02-90	Water
K-2	NA	02-02-90	Water
S-1	NA	02-13-90	Water
S-1	NA	02-13-90	Water
Outfall Sump 1	NA	02-13-90	Water
Field Blank	NA	01-30-90	Water
Field Blank	NA	02-01-90	Water
Field Blank	NA	02-02-90	Water
Field Blank	NA	02-13-90	Water

PESTICIDE/PCB's

OVERALL ASSESSMENT

Based on previous history, Aroclor 1248 has been identified as the primary PCB at the site. Therefore, single peak quantification is acceptable and PCB data were judged acceptable.

Lot 1

The data were reviewed and judged acceptable.

The samples were analyzed within CLP holding times.

Lot 2

The DBC surrogate recoveries were out of limits in most samples, method spikes, and method blanks. Since DBC recoveries were poor, the laboratory provided tetrachloro-m-xylene recoveries. However, the TMX was not detected in many samples. These observations suggested that quantitation of compounds may have been highly variable although the instrument was adequately calibrated. Therefore, these data were considered estimated.

The samples were analyzed within CLP holding times.

Lot 3

The matrix and method spike results were out of limits, therefore positive pesticide and PCB results were qualified estimated.

The samples were analyzed within CLP holding times.

Lot 4

Surrogate recoveries for TB-21 (0 to 2 feet) were zero, therefore results were rejected.

Matrix and method spike recoveries were out of limits, therefore positive PCB results were considered estimated.

The samples were analyzed within CLP holding times.

Lot 5

Matrix spike recoveries were out of limits, therefore non-detect data were considered estimated.

The samples were analyzed within CLP holding times.

Lot 6

The data were reviewed and judged acceptable.

The samples were analyzed within CLP holding times.

Lot 7

The data were reviewed and judged acceptable.

The samples were analyzed within CLP holding times.

Lot 8

The data were reviewed and judged acceptable.

The samples were analyzed within CLP holding times.

Lot 9

Matrix spike results were out of limits, therefore the data were considered estimated.

Matrix spike data for aldrin were zero, therefore aldrin was rejected.

The samples were analyzed within CLP holding times.

Lot 10

The data were reviewed and judged acceptable.

The samples were analyzed within CLP holding times.

Lot 11

The data were reviewed and judged acceptable.

The samples were analyzed within CLP holding times.

Lot 12

Surrogate recoveries were out of limits for Sump 3 (NW), therefore the data were considered estimated.

The samples were analyzed within CLP holding times.

dmt
April 3, 1990
pestsum.wpf/occ90

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Inorganics Lot 1

Sample location	Depth (feet below grade)	Sample date	Matrix
Field Blank	NA	09-28-89	Water
Field Blank	NA	09-28-89	Water
Field Blank	NA	09-29-89	Water
Field Blank	NA	09-29-89	Water
Field Blank	NA	10-03-89	Water
Water Blank	NA	10-03-89	Water
Field Blank	NA	10-03-89	Water
Field Blank	NA	10-04-89	Water
Field Blank	NA	10-04-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Inorganics Lot 2

Sample location	Depth (feet below grade)	Sample date	Matrix
Pilot Hole G	0 - 2	09-28-89	Soil
Pilot Hole G	10 - 12	09-28-89	Soil
Well G-1	50 - 52	09-29-89	Soil
TB-1	0 - 2	10-03-89	Soil
TB-2	0 - 2	10-03-89	Soil
TB-2	3 - 5	10-03-89	Soil
TB-3	9 - 11	10-03-89	Soil
TB-3	13 - 15	10-03-89	Soil
TB-4	7 - 9	10-03-89	Soil
TB-4	7 - 9	10-03-89	Soil
TB-4	13 - 15	10-03-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Inorganics Lot 3

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-5	9 - 11	10-04-89	Soil
TB-5	19 - 21	10-04-89	Soil
TB-5	27 - 29	10-04-89	Soil
TB-11	0 - 2	10-06-89	Soil
TB-11	3 - 5	10-06-89	Soil
Pilot Hole H	0 - 2	10-06-89	Soil
Pilot Hole H	10 - 12	10-06-89	Soil
TB-12	0 - 2	10-06-89	Soil
TB-12	3 - 5	10-06-89	Soil
TB-12	3 - 5	10-06-89	Soil
TB-13	0 - 2	10-06-89	Soil
TB-13	3 - 5	10-06-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Inorganics Lot 4

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-6	9 - 11	10-05-89	Soil
TB-6	13 - 15	10-05-89	Soil
TB-7	9 - 11	10-05-89	Soil
TB-7	13 - 15	10-05-89	Soil
TB-8	0 - 2	10-05-89	Soil
TB-8	3 - 5	10-05-89	Soil
TB-8	3 - 5	10-05-89	Soil
TB-9	0 - 2	10-05-89	Soil
TB-9	0 - 2	10-05-89	Soil
TB-9	3 - 5	10-05-89	Soil
TB-9	3 - 5	10-05-89	Soil
TB-10	0 - 2	10-05-89	Soil
TB-10	3 - 5	10-05-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Inorganics Lot 5

Sample location	Depth (feet below grade)	Sample date	Matrix
Field Blank	NA	10-06-89	Water
Field Blank	NA	10-06-89	Water
Field Blank	NA	10-09-89	Water
Field Blank	NA	10-09-89	Water
Field Blank	NA	10-10-89	Water
Field Blank	NA	10-10-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Inorganics Lot 6

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-16	1 - 3	10-09-89	Soil
TB-14	1 - 3	10-09-89	Soil
TB-14	3 - 5	10-09-89	Soil
TB-15	1 - 3	10-09-89	Soil
TB-15	3 - 5	10-09-89	Soil
TB-16	3 - 5	10-09-89	Soil
TB-17	1 - 3	10-09-89	Soil
TB-17	3 - 5	10-09-89	Soil
TB-18	30 - 32	10-09-89	Soil
TB-18	30 - 32	10-09-89	Soil
TB-18	10 - 12	10-09-89	Soil
TB-18	20 - 22	10-09-89	Soil
Well H-1	50 - 52	10-10-89	Soil
TB-19	6 - 8	10-10-89	Soil
TB-19	20 - 22	10-10-89	Soil
TB-20	30 - 32	10-10-89	Soil
TB-20	0 - 2	10-10-89	Soil
TB-20	10 - 12	10-10-89	Soil
TB-20	30 - 36	10-10-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Inorganics Lot 7

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-21	30 - 32	10-11-89	Soil
TB-21	30 - 32	10-11-89	Soil
TB-21	0 - 2	10-11-89	Soil
TB-21	14 - 16	10-11-89	Soil
TB-22	10 - 12	10-11-89	Soil
TB-22	20 - 22	10-11-89	Soil
TB-5A	45 - 47	10-16-89	Soil
TB-5A	45 - 47	10-16-89	Soil
TB-24	0 - 2	10-16-89	Soil
TB-24	3 - 5	10-16-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Inorganics Lot 8

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-22	30 - 32	10-12-89	Soil
TB-23	12 - 14	10-12-89	Soil
TB-23	30 - 32	10-12-89	Soil
TB-23	32 - 34	10-12-89	Soil
TB-23	34 - 36	10-12-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Inorganics Lot 9

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-5A	45 - 47	10-16-89	Soil
TB-5A	45 - 47	10-16-89	Soil
TB-24	0 - 2	10-16-89	Soil
TB-24	3 - 5	10-16-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Inorganics Lot 10

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-25	0 - 2	10-17-89	Soil
TB-25	3 - 5	10-17-89	Soil
TB-26	0 - 2	10-17-89	Soil
TB-26	3 - 5	10-17-89	Soil
TB-27	0 - 2	10-17-89	Soil
TB-27	3 - 5	10-17-89	Soil
TB-32	0 - 2	10-20-89	Soil
TB-32	4 - 6	10-20-89	Soil
TB-32	4 - 6	10-20-89	Soil
TB-32	8 - 10	10-20-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Inorganics Lot 11

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-29	0 - 2	10-18-89	Soil
TB-29	6 - 8	10-18-89	Soil
TB-29	6 - 8	10-18-89	Soil
TB-29	8 - 10	10-18-89	Soil
TB-28	0 - 2	10-18-89	Soil
TB-28	6 - 8	10-18-89	Soil
TB-28	8 - 10	10-18-89	Soil
Pilot Hole I	0 - 2	10-18-89	Soil
Pilot Hole I	10 - 12	10-18-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Inorganics Lot 12

Sample location	Depth (feet below grade)	Sample date	Matrix
Pilot Hole I	50 - 52	10-19-89	Soil
Pilot Hole I	50 - 52	10-19-89	Soil
TB-30	0 - 2	10-19-89	Soil
TB-30	6 - 8	10-19-89	Soil
TB-30	8 - 10	10-19-89	Soil
TB-31	0 - 2	10-19-89	Soil
TB-31	6 - 8	10-19-89	Soil
TB-31	8 - 10	10-19-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Inorganics Lot 13

Sample location	Depth (feet below grade)	Sample date	Matrix
Pilot Hole I	110 - 112	10-23-89	Soil
TB-34	1 - 3	10-23-89	Soil
TB-34	3 - 5	10-23-89	Soil
TB-35	1 - 3	10-23-89	Soil
TB-35	3 - 5	10-23-89	Soil
TB-36	1 - 3	10-23-89	Soil
TB-36	3 - 5	10-23-89	Soil
TB-37	7 - 9	10-23-89	Soil
TB-37	9 - 11	10-23-89	Soil
TB-38	9 - 11	10-23-89	Soil
TB-38	11 - 13	10-23-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Inorganics Lot 14

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-39	0 - 2	10-24-89	Soil
TB-39	0 - 2	10-24-89	Soil
TB-39	3 - 5	10-24-89	Soil
TB-40	0 - 2	10-24-89	Soil
TB-40	3 - 5	10-24-89	Soil
TB-33	0 - 2	10-24-89	Soil
TB-33	4 - 6	10-24-89	Soil
TB-33	8 - 10	10-24-89	Soil
Well Q-1	0 - 2	10-24-89	Soil
Well Q-1	10 - 12	10-24-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Inorganics Lot 15

Sample location	Depth (feet below grade)	Sample date	Matrix
Well Q-1	50 - 52	10-25-89	Soil
Well M-1	0 - 2	10-26-89	Soil
Well M-1	10 - 12	10-26-89	Soil
Well M-1	10 - 12	10-26-89	Soil
Well M-1	50 - 52	10-26-89	Soil
Pilot Hole J	0 - 2	10-26-89	Soil
Pilot Hole J	10 - 12	10-26-89	Soil
Pilot Hole J	50 - 52	10-26-89	Soil
Pilot Hole J	70 - 72	10-26-89	Soil
Pilot Hole J	75 - 77	10-26-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Inorganics Lot 16

Sample location	Depth (feet below grade)	Sample date	Matrix
Well P-1	0 - 2	10-30-89	Soil
Well P-1	12 - 14	10-30-89	Soil
Well P-1	45 - 47	10-30-89	Soil
Well P-1	50 - 52	10-30-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Inorganics Lot 17

Sample location	Depth (feet below grade)	Sample date	Matrix
Well O-1	0 - 2	11-01-89	Soil
Well O-1	10 - 12	11-01-89	Soil
Well O-1	10 - 12	11-01-89	Soil
Well O-1	50 - 52	11-01-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Inorganics Lot 17

Sample location	Depth (feet below grade)	Sample date	Matrix
Well O-1	0 - 2	11-01-89	Soil
Well O-1	10 - 12	11-01-89	Soil
Well O-1	10 - 12	11-01-89	Soil
Well O-1	50 - 52	11-01-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Inorganics Lot 18

Sample location	Depth (feet below grade)	Sample date	Matrix
Well P-1	40 - 42	11-02-89	Soil
Well P-1	55 - 57	11-02-89	Soil
Well N-1	0 - 2	11-06-89	Soil
Well N-1	10 - 12	11-06-89	Soil
Well N-1	50 - 52	11-06-89	Soil
Pilot Hole K	0 - 2	11-06-89	Soil
Pilot Hole K	10 - 12	11-06-89	Soil
Pilot Hole K	50 - 52	11-06-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Inorganics Lot 19

Sample location	Depth (feet below grade)	Sample date	Matrix
Well R-1	0 - 2	11-07-89	Soil
Well R-1	0 - 2	11-07-89	Soil
Well R-1	10 - 12	11-07-89	Soil
Well R-1	50 - 52	11-07-89	Soil
TB-41	10 - 12	11-08-89	Soil
Pilot Hole K	135 - 137	11-08-89	Soil
Pilot Hole L	0 - 2	11-13-89	Soil
Pilot Hole L	10 - 12	11-13-89	Soil
Pilot Hole L	50 - 52	11-13-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Inorganics Lot 20

Sample location	Depth (feet below grade)	Sample date	Matrix
Pilot Hole T	0 - 2	11-21-89	Soil
Pilot Hole T	10 - 12	11-21-89	Soil
Pilot Hole T	50 - 52	11-21-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Inorganics Lot 21

Sample location	Depth (feet below grade)	Sample date	Matrix
Pile B	1 - 3	11-30-89	Soil
Pile D and G	1 - 3	11-30-89	Soil
Pilot Hole S	0 - 2	12-04-89	Soil
Pilot Hole S	0 - 2	12-04-89	Soil
Pilot Hole S	10 - 12	12-04-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Inorganics Lot 22

Sample location	Depth (feet below grade)	Sample date	Matrix
Pilot Hole S	50 - 52	12-05-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Semi-Volatiles Lot 23

Sample location	Depth (feet below grade)	Sample date	Matrix
Pilot Hole J	75 - 77	10-26-89	Soil
Well P-1	0 - 2	10-30-89	Soil
Well P-1	12 - 14	10-30-89	Soil
Well P-1	45 - 47	10-30-89	Soil
Well P-1	50 - 52	10-30-89	Soil
Well O-1	0 - 2	11-01-89	Soil
Well O-1	10 - 12	11-01-89	Soil
Well O-1	10 - 12	11-01-89	Soil
Well O-1	50 - 52	11-01-89	Soil
Well P-1	40 - 42	11-02-89	Soil
Well P-1	55 - 57	11-02-89	Soil
Well N-1	0 - 2	11-06-89	Soil
Well N-1	10 - 12	11-06-89	Soil
Well N-1	50 - 52	11-06-89	Soil
Pilot Hole K	0 - 2	11-06-89	Soil
Pilot Hole K	10 - 12	11-06-89	Soil
Pilot Hole K	50 - 52	11-06-89	Soil
Field Blank	NA	10-26-89	Water
Field Blank	NA	10-26-89	Water
Field Blank	NA	10-27-89	Water
Field Blank	NA	10-27-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Semi-Volatiles Lot 23
(continued)

Sample location	Depth (feet below grade)	Sample date	Matrix
Field Blank	NA	11-01-89	Water
Field Blank	NA	11-01-89	Water
Field Blank	NA	11-02-89	Water
Field Blank	NA	11-02-89	Water
Field Blank	NA	11-06-89	Water
Field Blank	NA	11-06-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Semi-Volatiles Lot 24

Sample location	Depth (feet below grade)	Sample date	Matrix
Well R-1	0 - 2	11-07-89	Soil
Well R-1	0 - 2	11-07-89	Soil
Well R-1	10 - 12	11-07-89	Soil
Well R-1	50 - 52	11-07-89	Soil
Pilot Hole K	135 - 137	11-08-89	Soil
Pilot Hole L	0 - 2	11-13-89	Soil
Pilot Hole L	10 - 12	11-13-89	Soil
Pilot Hole L	50 - 52	11-13-89	Soil
Field Blank	NA	11-07-89	Water
Field Blank	NA	11-07-89	Water
Field Blank	NA	11-08-89	Water
Field Blank	NA	11-08-89	Water
Field Blank	NA	11-10-89	Water
Field Blank	NA	11-10-89	Water
Water Blank	NA	11-13-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Semi-Volatiles Lot 25

Sample location	Depth (feet below grade)	Sample date	Matrix
Well T-1	0 - 2	11-21-89	Soil
Well T-1	10 - 12	11-21-89	Soil
Well T-1	50 - 52	11-21-89	Soil
Pile B	1 - 3	11-30-89	Soil
Piles D and G	1 - 3	11-30-89	Soil
Pilot Hole S	0 - 2	12-04-89	Soil
Pilot Hole S	0 - 2	12-04-89	Soil
Pilot Hole S	10 - 12	12-04-89	Soil
Pilot Hole S	50 - 52	12-05-89	Soil
Field Blank	NA	11-21-89	Water
Field Blank	NA	11-21-89	Water
Field Blank	NA	11-30-89	Water
Field Blank	NA	11-30-89	Water
Field Blank	NA	12-04-89	Water
Field Blank	NA	12-04-89	Water
Field Blank	NA	12-05-89	Water
Field Blank	NA	12-05-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Semi-Volatiles Lot 26

Sample location	Depth (feet below grade)	Sample date	Matrix
B-1	NA	01-15-90	Water
B-2	NA	01-15-90	Water
G-1	NA	01-15-90	Water
D-1	NA	01-15-90	Water
C-1	NA	01-16-90	Water
C-2	NA	01-16-90	Water
D-2	NA	01-16-90	Water
E-1	NA	01-16-90	Water
E-2	NA	01-16-90	Water
I-1	NA	01-17-90	Water
I-2	NA	01-17-90	Water
I-1	NA	01-17-90	Water
Field Blank	NA	01-15-90	Water
Field Blank	NA	01-16-90	Water
Field Blank	NA	01-17-90	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Semi-Volatiles Lot 27

Sample location	Depth (feet below grade)	Sample date	Matrix
F-2	NA	01-18-90	Water
J-2	NA	01-18-90	Water
G-2	NA	01-22-90	Water
Q-1	NA	01-22-90	Water
M-1	NA	01-22-90	Water
N-1	NA	01-22-90	Water
H-2	NA	01-23-90	Water
H-1	NA	01-23-90	Water
H-1	NA	01-23-90	Water
J-1	NA	01-23-90	Water
O-1	NA	01-23-90	Water
N-10812	NA	01-24-90	Water
N-10598	NA	01-24-90	Water
N-10593	NA	01-24-90	Water
A-1	NA	01-25-90	Water
A-2	NA	01-25-90	Water
Field Blank	NA	01-18-90	Water
Field Blank	NA	01-22-90	Water
Field Blank	NA	01-23-90	Water
Field Blank	NA	01-24-90	Water

INORGANICS

Lot 1

No metals were found in the calibration or preparation blanks above the CRDL, several metals were above the IDL in the calibration blanks and in the preparation blank. Metals found in these samples is believed to be due to laboratory contamination, and has been judged to not adversely affect the data.

The CRI was out of limits for antimony, cadmium, chromium, copper, silver, and zinc. The CRA was out of limits for lead. Data in the following ranges were estimated:

Antimony	60 - 180 ug/l
Cadmium	5 - 15 ug/l
Chromium	10 - 30 ug/l
Copper	25 - 75 ug/l
Lead	3 - 9 ug/l
Silver	10 - 30 ug/l
Zinc	20 - 60 ug/l

Samples were analyzed within CLP holding times.

Aluminum, calcium, iron, lead, and magnesium were estimated in TB-03 (13 to 15 feet) and TB-04 (7 to 9 feet) because associated QA/QC were out of limits.

Samples were analyzed within CLP holding times.

Lot 2

Results for antimony, cadmium, lead, nickel, selenium, silver, sodium, and potassium were qualified as estimated because associated QA/QC samples and CRI and CRA results were out of limits.

Zinc results greater than 4 mg/kg were considered estimated because the serial dilution results were out of limits.

CRI and CRA results were out of limits for arsenic and chromium, therefore arsenic and chromium results in the following ranges were qualified as estimated.

Arsenic	0 - 4 mg/kg
Chromium	2 - 6 mg/kg

Samples were analyzed within CLP holding times.

Lot 3

Based on the CRI/CRA results, the following metals were qualified estimated within the corresponding ranges:

Copper	5 - 15 mg/kg
Manganese	3 - 9 mg/kg
Silver	2 - 6 mg/kg
Vanadium	10 - 30 mg/kg
Lead	0 - 1.6 mg/kg

Chromium data were rejected because MS/MSD spike recoveries were out of limits.

Copper, lead, manganese, selenium, silver, aluminum, calcium, and mercury data were qualified estimated because results of either the duplicate analysis or the matrix spike were out of limits.

Zinc data greater than 6 mg/kg was qualified estimated because results of serial dilution were out of limits.

Samples were analyzed within CLP holding times.

Lot 4

Results for arsenic and selenium were rejected because spike recoveries were less than the acceptable limit.

Results for antimony, cadmium, calcium, chromium, copper, sodium, potassium, magnesium, silver, vanadium, and zinc were qualified estimated because results of either duplicate analyses or matrix spikes were out of limits.

Samples were analyzed within CLP holding times.

Lot 5

Associated QA results for antimony, chromium, lead, nickel, and zinc results were out of limits, therefore values within the following ranges were estimated:

Antimony	60 - 180 ug/l
Chromium	10 - 30 ug/l
Lead	0 - 8 ug/l
Nickel	40 - 120 ug/l
Zinc	20 - 60 ug/l

The spike recovery for silver was lower than the acceptable limit, therefore silver was estimated.

Remaining values over 10 times the IDL were estimated.

Samples were analyzed within CLP holding times.

Lot 6

Duplicate analyses for H-1 (50 to 52 feet), TB-19 (6 to 8 feet, 20 to 22 feet, 30 to 32 feet), TB-20 (0 to 2 feet, 10 to 12 feet, 30 to 32 feet) were out of limits for antimony, therefore the results were estimated.

The matrix spike recoveries for antimony and silver in TB-16 (1 to 3 feet, 3 to 5 feet), TB-14 (1 to 3 feet, 3 to 5 feet), TB-15 (1 to 3 feet, 3 to 5 feet), TB-17 (1 to 3 feet, 3 to 5 feet), TB-18 (10 to 12 feet, 20 to 22 feet, 30 to 32 feet, 30 to 32 feet) and chromium in H-1 (50 to 52 feet), TB-19 (6 to 8 feet, 20 to 22 feet, 30 to 32 feet), TB-20 (0 to 2 feet, 10 to 12 feet, 30 to 32 feet) were out of limits, therefore the data were qualified estimated. The matrix spike recoveries for cadmium, lead, and selenium in H-1 (50 to 52 feet), TB-19 (6 to 8 feet, 20 to 22 feet, 30 to 32 feet), TB-20 (0 to 2 feet, 10 to 12 feet, 30 to 32 feet) and TB-16 (1 to 3 feet, 3 to 5 feet), TB-14 (1 to 3 feet, 3 to 5 feet), TB-15 (1 to 3 feet, 3 to 5 feet), TB-17 (1 to 3 feet, 3 to 5 feet), TB-18 (10 to 12 feet, 20 to 22 feet, 30 to 32 feet, 30 to 32 feet) were out of limits, therefore the data were qualified estimated.

Data for H-1 (50 to 52 feet), TB-19 (6 to 8 feet, 20 to 22 feet, 30 to 32 feet), TB-20 (0 to 2 feet, 10 to 12 feet, 30 to 32 feet) exceeding ten times the IDL, therefore the following data were estimated:

Aluminum	>10 mg/kg
Barium	>2 mg/kg
Calcium	>20 mg/kg
Cobalt	>2 mg/kg
Copper	>0.6 mg/kg
Iron	>14 mg/kg
Magnesium	>20 mg/kg
Manganese	>2 mg/kg
Nickel	>4 mg/kg
Sodium	>12 mg/kg
Vanadium	>2 mg/kg
Zinc	>6 mg/kg

Associated QA/QC were out of limits for the following samples and ranges:

Chromium in TB-16 (1 to 3 feet, 3 to 5 feet), TB-14 (1 to 3 feet, 3 to 5 feet), TB-15 (1 to 3 feet, 3 to 5 feet), TB-17 (1 to 3 feet, 3 to 5 feet), TB-18 (10 to 12 feet, 20 to 22 feet, 30 to 32 feet, 30 to 32 feet) in the range 2-6 mg/kg.

Zinc in TB-16 (1 to 3 feet, 3 to 5 feet), TB-14 (1 to 3 feet, 3 to 5 feet), TB-15 (1 to 3 feet, 3 to 5 feet), TB-17 (1 to 3 feet, 3 to 5 feet), TB-18 (10 to 12 feet, 20 to 22 feet, 30 to 32 feet, 30 to 32 feet) and H-1 (50 to 52 feet), TB-19 (6 to 8 feet, 20 to 22 feet, 30 to 32 feet), TB-20 (0 to 2 feet, 10 to 12 feet, 30 to 32 feet) in the range 4-12 mg/kg.

Selenium in TB-16 (1 to 3 feet, 3 to 5 feet), TB-14 (1 to 3 feet, 3 to 5 feet), TB-15 (1 to 3 feet, 3 to 5 feet), TB-17 (1 to 3 feet, 3 to 5 feet), TB-18 (10 to 12 feet, 20 to 22 feet, 30 to 32 feet, 30 to 32 feet) and H-1 (50 to 52 feet), TB-19 (6 to 8 feet, 20 to 22 feet, 30 to 32 feet), TB-20 (0 to 2 feet, 10 to 12 feet, 30 to 32 feet) in the range 0-2 mg/kg.

Lead in H-1 (50 to 52 feet), TB-19 (6 to 8 feet, 20 to 22 feet, 30 to 32 feet), TB-20 (0 to 2 feet, 10 to 12 feet, 30 to 32 feet) in the range 0-1.6 mg/kg.

Chromium was estimated in TB-18 (30 to 32 feet) because associated QA/QC were out of limits.

Samples were analyzed within CLP holding times.

Lot 7

Selenium results were estimated because the laboratory control sample for selenium was not analyzed with the batch.

The CRA for arsenic was out of limits, therefore results for arsenic were estimated in TB-21 (0 to 2 feet, 14 to 16 feet, 30 to 32 feet).

The matrix spikes for arsenic and silver were out of limits, therefore the data were estimated.

The following data were estimated because the serial dilutions were out of limits:

Calcium	>20 mg/kg
Magnesium	>200 mg/kg
Sodium	>12 mg/kg
Vanadium	>2 mg/kg

The following data were estimated because the CRA or CRI were out of limits:

Lead	1 - 3 mg/kg
Antimony	12 - 36 mg/kg
Zinc	4 - 12 mg/kg

Aluminum and iron were estimated in TB-21 (30 to 32 feet) because associated QA/QC were out of limits.

Samples were analyzed within CLP holding times.

Lot 8

The laboratory control sample results were obtained from a separate analysis run, therefore copper, sodium, and antimony results were estimated.

Duplicate results for lead and manganese were out of limits, therefore the data were estimated.

The matrix spike for silver was out of limits, therefore the data was estimated.

Associated QA/QC for antimony, cadmium, cobalt, copper, vanadium, beryllium, chromium, silver, thallium, and arsenic results were out of limits, therefore data in the following ranges were considered estimated:

Antimony	12 - 36 mg/kg
Cadmium	1 - 3 mg/kg
Cobalt	10 - 30 mg/kg
Copper	5 - 15 mg/kg
Vanadium	10 - 30 mg/kg
Beryllium	1 - 3 mg/kg
Chromium	2 - 6 mg/kg
Silver	2 - 6 mg/kg
Thallium	0 - 4 mg/kg
Arsenic	0 - 4 mg/kg

Samples were analyzed within CLP holding times.

Lot 9

The laboratory control sample results for sodium and potassium were out of limits, therefore the data were considered estimated.

The silver matrix spike was out of limits, therefore the data was considered estimated.

Lead results were estimated because results of standard additions were out of limits.

The following data were considered estimated because associated QA/QC were out of limits:

Calcium	>20 mg/kg
Magnesium	>20 mg/kg
Sodium	>12 mg/kg
Vanadium	>2 mg/kg

A matrix effect may be present in the determination of selenium. Results may be biased low.

CRI and CRA results were out of limits, therefore data in the following ranges were considered estimated:

Antimony	12 - 36 mg/kg
Arsenic	0 - 4 mg/kg
Lead	0 - 1.2 mg/kg
Cadmium	1 - 3 mg/kg
Nickel	8 - 24 mg/kg
Selenium	0 - 2 mg/kg
Thallium	0 - 4 mg/kg

Samples were analyzed within CLP holding times.

Lot 10

The laboratory control sample results for aluminum and potassium were out of limits, therefore the data was considered estimated.

Matrix spikes for manganese, silver, and selenium were out of limits, therefore the data were considered estimated.

The serial dilution for vanadium was out of limits, therefore the data was estimated.

CRI and CRA were out of limits, therefore results in the indicated ranges for the following metals were considered estimated:

Antimony	28 - 52 mg/kg
Cadmium	1 - 3 mg/kg
Chromium	2 - 6 mg/kg
Zinc	4 - 12 mg/kg
Silver	2 - 6 mg/kg
Selenium	0 - 2 mg/kg
Lead	0 - 1.6 mg/kg

Iron was estimated in TB-32 (4 to 6 feet) because associated QA/QC were out of limits.

Samples were analyzed within CLP holding times.

Lot 11

The laboratory control sample results for sodium were out of limits, therefore sodium data were considered estimated.

All results for TB-28 (0 to 2 feet) and Well I (10 to 12 feet) are considered estimated because associated QA/QC were out of limits.

The duplicate analyses for aluminum, iron, lead, and manganese were out of limits, therefore the data was considered estimated.

The matrix spike recoveries for cadmium, lead, selenium, and silver were out of limits, therefore the data were considered estimated.

The CRI was out of limits, therefore data in the following ranges were considered estimated:

Antimony	12 - 36 mg/kg
Cadmium	1 - 3 mg/kg
Zinc	4 - 12 mg/kg
Silver	2 - 6 mg/kg
Selenium	0 - 2 mg/kg
Thallium	0 - 4 mg/kg
Nickel	8 - 24 mg/kg

Iron was estimated in TB-29 (6 to 8 feet) because associated QA/QC were out of limits.

Samples were analyzed within CLP holding times.

Lot 12

The matrix spike recovery for arsenic, selenium, and silver were out of limits, therefore the data were estimated.

The serial dilution for manganese was out of limits, therefore results greater than 2 mg/kg were estimated.

Associated QA/QC were out of limits, therefore data in the following ranges were considered estimated:

Selenium	0 - 2 mg/kg
Thallium	0 - 4 mg/kg
Lead	0 - 1.2 mg/kg
Antimony	12 - 36 mg/kg
Cadmium	1 - 3 mg/kg
Chromium	2 - 6 mg/kg
Manganese	3 - 9 mg/kg
Nickel	8 - 24 mg/kg
Silver	2 - 6 mg/kg
Zinc	4 - 12 mg/kg

Samples were analyzed within CLP holding times.

Lot 13

Sodium and potassium data were considered estimated because laboratory control sample results were out of limits.

The matrix spike recoveries for silver, selenium, and lead were out of limits, therefore the results were considered estimated.

Associated QA/QC were out of limits, therefore data in the ranges for the following metals were flagged as estimated:

Antimony	12 - 36 mg/kg
Cadmium	1 - 3 mg/kg
Chromium	>2 mg/kg
Copper	>0.6 mg/kg
Manganese	3 - 9 mg/kg
Nickel	8 - 24 mg/kg
Sodium	>12 mg/kg
Vanadium	>2 mg/kg
Zinc	4 - 12 mg/kg

Samples were analyzed within CLP holding times.

Lot 14

The matrix spike, post-digest spike, and CRI were out of limits, therefore results for antimony were rejected.

The matrix spike for selenium was out of limits, therefore the data was rejected.

The matrix spike for lead, manganese, and silver were out of limits, therefore the data was considered estimated.

The serial dilution for nickel was out of limits, therefore data above 4 mg/kg was rejected.

The serial dilution was out of limits, therefore data in the following ranges were considered estimated:

Cadmium	1 - 3 mg/kg
Chromium	>2 mg/kg
Cobalt	>2 mg/kg
Copper	>0.6 mg/kg
Vanadium	>2 mg/kg

Aluminum and lead were estimated in TB-39 (0 to 2 feet) because associated QA/QC were out of limits.

Samples were analyzed within CLP holding times.

Lot 15

Although they comply with the criteria outlined in the EPA scope of work for being within limits, results of the serial dilution for antimony, cadmium, magnesium, silver, vanadium, and zinc were considered unacceptable. For example, the initial sample result for antimony was not detected with an IDL of 4 mg/kg. The result for the serial dilution was 66.2 mg/kg which was well above the CRDL of 12 mg/kg. Similarly, the initial result for cadmium was less than the IDL of 0.2 mg/kg. The serial dilution result was 1.47 mg/kg which was above the CRDL of 1 mg/kg. Therefore, the data for antimony, cadmium, magnesium, silver, vanadium, and zinc were rejected.

The serial dilution was out of limits for copper, therefore results greater than 0.6 mg/kg were considered estimated.

The matrix spikes were out of limits, therefore results for chromium, lead, selenium, and thallium were considered estimated.

Manganese was estimated in Well M-1 (10 to 12 feet) because associated QA/QC were of limits.

Samples were analyzed within CLP holding times.

Lot 16

The duplicate analyses antimony, calcium, copper, magnesium, and nickel were out of limits, therefore the data were considered estimated.

The matrix spike for silver and selenium were out of limits, therefore the data were considered estimated.

The serial dilution for sodium and cadmium were out of limits, therefore the data were considered estimated.

The CRI and CRA were out of limits, therefore the following data were considered estimated:

Chromium	2 - 6 mg/kg
Zinc	4 - 12 mg/kg

Samples were analyzed within CLP holding times.

Lot 17

The duplicate analyses were out of limits, therefore antimony, calcium, copper, magnesium, and nickel were considered estimated.

The matrix spike recoveries were out of limits, therefore silver and selenium were considered estimated.

The serial dilution for sodium and cadmium were out of limits, therefore the data were considered estimated.

The CRI and CRA were out of limits, therefore the following data were considered estimated:

Chromium	2 - 6 mg/kg
Lead	<1.2 mg/kg
Zinc	4 - 12 mg/kg

Chromium was estimated in Well O-1 (10 to 12 feet) because associated QA/QC were out of limits.

Samples were analyzed within CLP holding times.

Lot 18

The continuing calibration blank contained antimony, therefore antimony results less than 12 mg/kg were rejected.

Results of the laboratory control sample were out of limits, therefore aluminum is estimated.

Results of duplicate analyses were out of limits, therefore arsenic was estimated.

The matrix spikes were out of limits, therefore antimony, manganese, selenium, and silver were considered estimated.

The serial dilution for sodium was out of limits, therefore concentrations greater than 5 mg/kg were considered estimated.

The CRI and CRA's for zinc were out of limits, therefore zinc concentrations in the range 4-12 mg/kg were considered estimated.

Samples were analyzed within CLP holding times.

Lot 19

Results of duplicate analyses were out of limits, therefore antimony and copper were considered estimated.

The matrix spikes for lead and silver were out of limits, therefore the data were considered estimated.

The results of duplicate serial dilution were greater than 100 percent, therefore cadmium data greater than 2 mg/kg and nickel data greater than 4 mg/kg were rejected; chromium and cobalt data greater than 2 mg/kg and zinc data greater than 6 mg/kg were estimated.

The CRI and CRA were out of limits, therefore vanadium data in the range 10-30 mg/kg were estimated, and lead was estimated in 493 and 494.

Samples were analyzed within CLP holding times.

Lot 20

The results of duplicate analyses were out of limits, therefore chromium was considered estimated.

The matrix spikes for antimony, arsenic, lead, and silver were out of limits, therefore the data were considered estimated.

The CRI and CRA were out of limits, therefore the following data were considered estimated:

Cadmium	1 - 3 mg/kg
Selenium	0 - 2 mg/kg
Vanadium	>2 mg/kg
Zinc	>4 mg/kg

Samples were analyzed within CLP holding times.

Lot 21

The results of duplicate analyses were out of limits, therefore chromium was considered estimated.

The matrix spikes for antimony, arsenic, lead, and silver were out of limits, therefore the data were considered estimated.

The CRI and CRA were out of limits, therefore the following data were considered estimated:

Cadmium	1 - 3 mg/kg
Selenium	0 - 2 mg/kg
Vanadium	>2 mg/kg
Zinc	>4 mg/kg

Samples were analyzed within CLP holding times.

Lot 22

The results of duplicate analyses were out of limits, therefore chromium was considered estimated.

The matrix spikes for antimony, arsenic, lead, and silver were out of limits, therefore the data were considered estimated.

The CRI and CRA were out of limits, therefore the following data were considered estimated:

Cadmium	1 - 3 mg/kg
Selenium	0 - 2 mg/kg
Vanadium	>2 mg/kg
Zinc	>4 mg/kg

Samples were analyzed within CLP holding times.

Lot 23

The results of serial dilution were out of limits, therefore aluminum for B-1, B-2, and F-1 were rejected. Remaining aluminum results greater than 50 ug/l were considered estimated.

The following data were detected in the field blanks above twice the IDL, therefore data less than five times the IDL for the following samples were rejected:

Nickel	C-1, C-2, D-2, E-2, I-1, I-2, F-2, F-1, J-2
Potassium	D-2
Vanadium	B-1, G-1, D-1, C-1, C-2, E-1, J-2
Zinc	C-1, C-2, D-2, E-1, E-2, I-1, I-2, F-2, F-1, J-2

Post-digestion spikes were out of limits, therefore lead, selenium, and silver were considered estimated.

The duplicate analysis was conducted on a field blank, therefore all data (except mercury) greater than the following CRDL's are estimated:

Antimony	60 ug/l	Magnesium	5,000 ug/l
Arsenic	10 ug/l	Manganese	15 ug/l
Barium	200 ug/l	Nickel	40 ug/l
Beryllium	5 ug/l	Potassium	5,000 ug/l
Cadmium	5 ug/l	Sodium	5 ug/l
Calcium	5,000 ug/l	Thallium	10 ug/l
Chromium	10 ug/l	Vanadium	50 ug/l
Cobalt	50 ug/l	Zinc	20 ug/l
Copper	25 ug/l		
Iron	100 ug/l		

Samples were analyzed within CLP holding times.

Lot 24

The field blank contained copper and lead greater than twice the IDL, therefore copper in G-2 and Q-1, lead in G-2, M-1, and N-1 were rejected.

The CRI and CRA were out of limits, therefore lead, silver, and zinc were considered estimated.

The duplicate analysis was conducted on a field blank, therefore all data (except mercury) greater than the following CRDL's are estimated:

Aluminum	200 ug/l	Iron	100 ug/l
Antimony	60 ug/l	Magnesium	5,000 ug/l
Arsenic	10 ug/l	Manganese	15 ug/l
Barium	200 ug/l	Mercury	0.2 ug/l
Beryllium	5 ug/l	Nickel	40 ug/l
Cadmium	5 ug/l	Potassium	5,000 ug/l
Calcium	5,000 ug/l	Selenium	5 ug/l
Chromium	10 ug/l	Sodium	5,000 ug/l
Cobalt	50 ug/l	Thallium	10 ug/l
Copper	25 ug/l	Vanadium	50 ug/l

Samples were analyzed within CLP holding times.

Lot 25

The field blanks contained aluminum, calcium, chromium, cobalt, iron, nickel, sodium, and zinc at concentrations greater than twice the IDL, therefore aluminum was rejected in N-10812 and N-10598, chromium was rejected in N-10812, N-10598, N-10593, A-1, and A-2, iron was rejected in A-1,

nickel was rejected in N-10812, N-10598, N-10593, A-1, and A-2, and zinc was rejected in A-1.

The CRI and CRA were out of limits, therefore lead, silver, and zinc were considered estimated.

The duplicate analysis was conducted on a field blank, therefore all data (except mercury) greater than the following CRDL's are estimated:

Aluminum	200 ug/l	Iron	100 ug/l
Antimony	60 ug/l	Magnesium	5,000 ug/l
Arsenic	10 ug/l	Manganese	15 ug/l
Barium	200 ug/l	Mercury	0.2 ug/l
Beryllium	5 ug/l	Nickel	40 ug/l
Cadmium	5 ug/l	Potassium	5,000 ug/l
Calcium	5,000 ug/l	Selenium	5 ug/l
Chromium	10 ug/l	Sodium	5,000 ug/l
Cobalt	50 ug/l	Thallium	10 ug/l
Copper	25 ug/l	Vanadium	50 ug/l
Cyanide	10 ug/l		

Samples were analyzed within CLP holding times.

Lot 26

The CRI and CRA were out of limits, therefore data in the following ranges were considered estimated:

Antimony	0 - 320 ug/l
Cadmium	5 - 15 ug/l
Nickel	40 - 120 ug/l
Selenium	0 - 10 ug/l
Zinc	20 - 60 ug/l
Arsenic	0 - 20 ug/l

The results of matrix spikes were out of limits, therefore aluminum in P-1 was rejected, lead in P-1 and T-2 were rejected, and manganese in T-2 was rejected.

The results of duplicate analyses were out of limits, therefore nickel was rejected in T-2.

The matrix spike for lead and silver were out of limits, therefore the data were considered estimated.

The duplicate analysis was conducted on a field blank, therefore all data (except mercury) greater than the CRDL's were considered estimated.

Samples were analyzed within CLP holding times.

Lot 27

The matrix spikes were out of limits, therefore silver and cyanide were considered estimated.

Post-digestion spikes were out of limits for lead in 2/2 FB, K-1, K-2, consequently the results may be biased high. Therefore, lead less than 6 ug/l were considered estimated.

Samples were analyzed within CLP holding times.

Lot 28

Several metals were detected in the field blank at twice the IDL, therefore the following metals were rejected:

Chromium	<50 ug/l
Manganese	<9 ug/l
Potassium	<1,470 ug/l
Sodium	<177 ug/l
Zinc	<122 ug/l

The matrix spike was conducted on a field blank. Lead and silver were out of limits, therefore all lead and silver results were rejected. All other results less than four times the spike concentration were estimated.

Samples were analyzed within CLP holding times.

dmt
April 3, 1990
metsum.wpf/occ90

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Pesticides/PCB's Lot 1

Sample location	Depth (feet below grade)	Sample date	Matrix
Pilot Hole G	0 - 2	09-28-89	Soil
Pilot Hole G	10 - 12	09-28-89	Soil
Well G-1	50 - 52	09-29-89	Soil
Field Blank	NA	09-28-89	Water
Field Blank	NA	09-28-89	Water
Field Blank	NA	09-29-89	Water
Field Blank	NA	09-29-89	Water
Field Blank	NA	10-03-89	Water
Water Blank	NA	10-03-89	Water
Field Blank	NA	10-03-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Pesticides/PCB's Lot 2

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-1	0 - 2	10-03-89	Soil
TB-1	3 - 5	10-03-89	Soil
TB-2	0 - 2	10-03-89	Soil
TB-2	3 - 5	10-03-89	Soil
TB-3	9 - 11	10-03-89	Soil
TB-3	13 - 15	10-03-89	Soil
TB-4	7 - 9	10-03-89	Soil
TB-4	7 - 9	10-03-89	Soil
TB-4	13 - 15	10-03-89	Soil
TB-5	9 - 11	10-04-89	Soil
TB-5	19 - 21	10-04-89	Soil
TB-5	27 - 29	10-04-89	Soil
TB-6	9 - 11	10-05-89	Soil
TB-6	13 - 15	10-05-89	Soil
TB-7	9 - 11	10-05-89	Soil
TB-7	13 - 15	10-05-89	Soil
TB-8	0 - 2	10-05-89	Soil
TB-8	3 - 5	10-05-89	Soil
TB-8	3 - 5	10-05-89	Soil
TB-9	0 - 2	10-05-89	Soil
TB-9	3 - 5	10-05-89	Soil

HKH 001 0808

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Pesticides/PCB's Lot 2
(continued)

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-10	0 - 2	10-05-89	Soil
TB-10	3 - 5	10-05-89	Soil
TB-11	0 - 2	10-06-89	Soil
TB-11	3 - 5	10-06-89	Soil
Pilot Hole H	0 - 2	10-06-89	Soil
Pilot Hole H	10 - 12	10-06-89	Soil
TB-12	0 - 2	10-06-89	Soil
TB-12	3 - 5	10-06-89	Soil
TB-12	3 - 5	10-06-89	Soil
TB-13	0 - 2	10-06-89	Soil
TB-13	3 - 5	10-06-89	Soil
TB-15	1 - 3	10-09-89	Soil
TB-16	1 - 3	10-09-89	Soil
TB-17	1 - 3	10-09-89	Soil
TB-17	3 - 5	10-09-89	Soil
Field Blank	NA	10-04-89	Water
Field Blank	NA	10-04-89	Water
Field Blank	NA	10-05-89	Water
Field Blank	NA	10-05-89	Water
Field Blank	NA	10-06-89	Water
Field Blank	NA	10-06-89	Water

HKR 001 0809

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Pesticides/PCB's Lot 3

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-16	3 - 5	10-09-89	Soil
TB-14	1 - 3	10-09-89	Soil
TB-14	3 - 5	10-09-89	Soil
TB-15	3 - 5	10-09-89	Soil
TB-18	30 - 32	10-09-89	Soil
TB-18	30 - 32	10-09-89	Soil
TB-18	10 - 12	10-09-89	Soil
TB-18	20 - 22	10-09-89	Soil
TB-20	0 - 2	10-10-89	Soil
TB-20	10 - 12	10-10-89	Soil
TB-20	30 - 32	10-10-89	Soil
Field Blank	NA	10-09-89	Water
Field Blank	NA	10-09-89	Water
Field Blank	NA	10-10-89	Water
Field Blank	NA	10-10-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Pesticides/PCB's Lot 4

Sample location	Depth (feet below grade)	Sample date	Matrix
Well H-1	50 - 52	10-10-89	Soil
TB-19	6 - 8	10-10-89	Soil
TB-19	20 - 22	10-10-89	Soil
TB-19	30 - 32	10-10-89	Soil
TB-21	30 - 32	10-11-89	Soil
TB-21	30 - 32	10-11-89	Soil
TB-21	0 - 2	10-11-89	Soil
TB-21	14 - 16	10-11-89	Soil
TB-22	10 - 12	10-11-89	Soil
TB-22	20 - 22	10-11-89	Soil
TB-22	30 - 32	10-11-89	Soil
TB-23	12 - 14	10-12-89	Soil
TB-23	30 - 32	10-12-89	Soil
TB-23	32 - 34	10-12-89	Soil
TB-23	34 - 36	10-12-89	Soil
TB-5A	45 - 47	10-16-89	Soil
TB-5A	45 - 47	10-16-89	Soil
TB-24	0 - 2	10-16-89	Soil
TB-24	3 - 5	10-16-89	Soil
TB-25	0 - 2	10-17-89	Soil
TB-25	3 - 5	10-17-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Pesticides/PCB's Lot 4
(continued)

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-26	0 - 2	10-17-89	Soil
TB-26	3 - 5	10-17-89	Soil
TB-27	0 - 2	10-17-89	Soil
TB-27	3 - 5	10-17-89	Soil
Field Blank	NA	10-11-89	Water
Field Blank	NA	10-11-89	Water
Field Blank	NA	10-12-89	Water
Field Blank	NA	10-12-89	Water
Field Blank	NA	10-16-89	Water
Field Blank	NA	10-16-89	Water
Field Blank	NA	10-17-89	Water
Field Blank	NA	10-17-89	Water
Casing Blank	NA	10-17-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Pesticides/PCB's Lot 5

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-29	0 - 3	10-18-89	Soil
TB-29	6 - 8	10-18-89	Soil
TB-29	6 - 8	10-18-89	Soil
TB-29	8 - 10	10-18-89	Soil
TB-28	0 - 2	10-18-89	Soil
TB-28	6 - 8	10-18-89	Soil
TB-28	8 - 10	10-18-89	Soil
Pilot Hole I	0 - 2	10-18-89	Soil
Pilot Hole I	10 - 12	10-10-89	Soil
Pilot Hole I	50 - 52	10-19-89	Soil
Pilot Hole I	50 - 52	10-19-89	Soil
TB-30	0 - 2	10-19-89	Soil
TB-30	6 - 8	10-19-89	Soil
TB-30	8 - 10	10-19-89	Soil
TB-31	0 - 2	10-19-89	Soil
TB-31	6 - 8	10-19-89	Soil
TB-31	8 - 10	10-19-89	Soil
TB-32	0 - 2	10-20-89	Soil
TB-32	4 - 6	10-20-89	Soil
TB-32	4 - 6	10-20-89	Soil
TB-32	8 - 10	10-20-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Pesticides/PCB's Lot 5
(continued)

Sample location	Depth (feet below grade)	Sample date	Matrix
TB-34	1 - 2	10-23-89	Soil
TB-34	3 - 5	10-23-89	Soil
TB-35	1 - 3	10-23-89	Soil
TB-35	3 - 5	10-23-89	Soil
TB-36	1 - 3	10-23-89	Soil
Field Blank	NA	10-18-89	Water
Field Blank	NA	10-18-89	Water
Field Blank	NA	10-19-89	Water
Field Blank	NA	10-19-89	Water
Field Blank	NA	10-20-89	Water
Field Blank	NA	10-20-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Pesticides/PCB's Lot 6

Sample location	Depth (feet below grade)	Sample date	Matrix
Pilot Hole I	110 - 112	10-23-89	Soil
TB-36	3 - 5	10-23-89	Soil
TB-37	7 - 9	10-23-89	Soil
TB-37	9 - 11	10-23-89	Soil
TB-38	9 - 11	10-23-89	Soil
TB-38	11 - 13	10-23-89	Soil
TB-39	0 - 2	10-24-89	Soil
TB-39	0 - 2	10-24-89	Soil
TB-39	3 - 5	10-24-89	Soil
TB-40	0 - 2	10-24-89	Soil
TB-40	3 - 5	10-24-89	Soil
TB-33	0 - 2	10-24-89	Soil
TB-33	4 - 6	10-24-89	Soil
Well Q-1	0 - 2	10-24-89	Soil
Well Q-1	10 - 12	10-24-89	Soil
Well Q-1	50 - 52	10-25-89	Soil
Well M-1	0 - 2	10-26-89	Soil
Well M-1	10 - 12	10-26-89	Soil
Well M-1	10 - 12	10-26-89	Soil
Well M-1	50 - 52	10-26-89	Soil
Pilot Hole J	0 - 2	10-26-89	Soil

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Pesticides/PCB's Lot 6
(continued)

Sample location	Depth (feet below grade)	Sample date	Matrix
Pilot Hole J	10 - 12	10-26-89	Soil
Pilot Hole J	50 - 52	10-26-89	Soil
Pilot Hole J	70 - 72	10-26-89	Soil
Field Blank	NA	10-23-89	Water
Field Blank	NA	10-23-89	Water
Field Blank	NA	10-24-89	Water
Field Blank	NA	10-24-89	Water
Field Blank	NA	10-25-89	Water
Field Blank	NA	10-25-89	Water
Water Blank	NA	10-25-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Quality Assurance/Quality Control
Pesticides/PCB's Lot 7

Sample location	Depth (feet below grade)	Sample date	Matrix
Pilot Hole J	75 - 77	10-26-89	Soil
Well P-1	0 - 2	10-30-89	Soil
Well P-1	10 - 12	10-30-89	Soil
Well P-1	45 - 47	10-30-89	Soil
Well P-1	50 - 52	10-30-89	Soil
Well O-1	0 - 2	11-01-89	Soil
Well O-1	10 - 12	11-01-89	Soil
Well O-1	10 - 12	11-01-89	Soil
Well O-1	50 - 52	11-01-89	Soil
Well P-1	40 - 42	11-02-89	Soil
Well P-1	55 - 57	11-02-89	Soil
Well N-1	0 - 2	11-06-89	Soil
Well N-1	10 - 12	11-06-89	Soil
Well N-1	50 - 52	11-06-89	Soil
Pilot Hole K	0 - 2	11-06-89	Soil
Pilot Hole K	10 - 12	11-06-89	Soil
Pilot Hole K	50 - 52	11-06-89	Soil
Field Blank	NA	10-26-89	Water
Field Blank	NA	10-26-89	Water
Field Blank	NA	10-30-89	Water
Field Blank	NA	10-30-89	Water

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

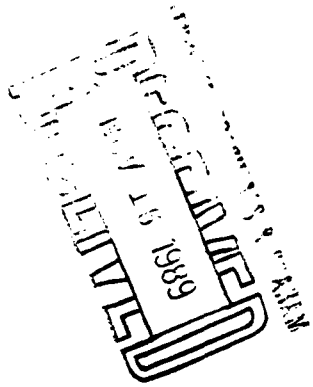
Quality Assurance/Quality Control
Pesticides/PCB's Lot 7
(continued)

Sample location	Depth (feet below grade)	Sample date	Matrix
Field Blank	NA	11-01-89	Water
Field Blank	NA	11-01-89	Water
Field Blank	NA	11-02-89	Water
Field Blank	NA	11-02-89	Water
Field Blank	NA	11-06-89	Water
Field Blank	NA	11-06-89	Water

APPENDIX 5

Field Request Changes

Occidental Chemical Corporation



- CERTIFIED MAIL -

November 10, 1989

Mr. Mel Hauptman
Site Compliance Branch
Emergency and Remedial Response Division
United States Environmental Protection Agency
Region II
26 Federal Plaza, Room 747
New York, New York 10278

Reference: Administrative Order on Consent
Hooker Chemical/Ruco Polymer Corp. Site
Index No. II CERCLA-80216

Dear Mr. Hauptman:

During test boring at well location P-1, oily and dark stained soils were encountered from a depth of about 42 feet to 54 feet below grade. These soils appeared to be similar to soils encountered at well cluster E during OCC's 1982 investigation. OCC believes that additional soil borings are required to more fully define the extent of such soils.

Four additional borings will be drilled on the peirphery of the sump and to the south of P-1 as shown on the attached figure. Each boring will be completed to a depth of 55 feet below grade. The extent of oily or dark stained soils will be determined in the field by visual observation. OCC may, at its option, submit additional samples of such soil for analysis in order to further characterize chemical presence in the soils.

Very truly yours,

Alan F. Weston, Ph.D.
Manager, Analytical Services
Special Environmental Programs

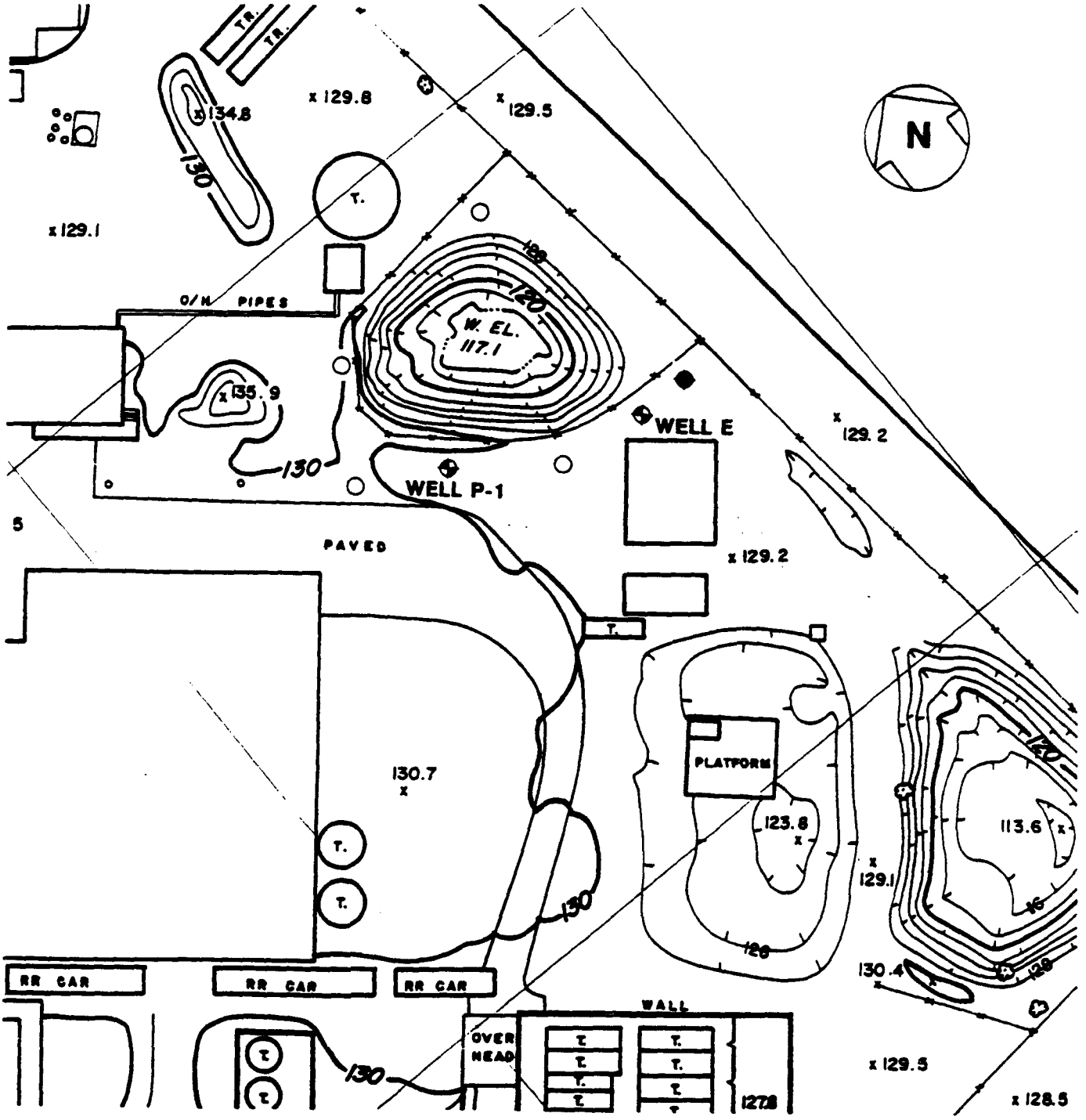
AFW/mc
A:HAUPT.AW1
Enclosure

cc: G. Snyder
J. Ruffing

BCC: L.F. Wood, J.A. Mack, ~~R. Lamonica,~~ J. Hanna, T. Yagley

HKR 001 0821

OxyChem
Special Environmental Programs
Occidental Chemical Center
360 Rainbow Boulevard South Box 728, Niagara Falls, New York 14302 716/286-3000



LEGEND

- ○ PROPOSED TEST BORINGS
- ● TEST BORING E REPLACEMENT

0 50

SCALE IN FEET

OCCIDENTAL CHEMICAL CORPORATION
RUCO POLYMER CORPORATION SITE
HICKSVILLE, NEW YORK

PROPOSED TEST BORINGS FOR PCB ANALYSIS

DATE	REVISED

PREPARED BY:

LEGGETTE, BRASHEARS & GRAHAM, INC.
Professional Ground-Water Consultants
72 Danbury Road
Wilton, CT 06897
203-762-1207

DATE: 11/7/89 FIGURE

LEGGETTE, BRASHEARS & GRAHAM, INC.

PROFESSIONAL GROUND-WATER CONSULTANTS

R. G. SLAYBACK
G. SIDNEY FOX
FRANK H. CRUM
MICHAEL R. BURKE
ROBERT LAMONICA

72 DANBURY ROAD
WILTON, CT 06897
203-762-1207

FAX 203-762-8062

WILLIAM K. BECKMAN
DAN C. BUZEA

DOUGLAS E. SIMMONS
JOHN NASO, JR.
W. PETER BALLEAU
DAVID SCOTT
LONNIE D. NORMAN
J. KEVIN POWERS

October 23, 1989

Mr. Douglas Tomchuk
Environmental Engineer
United States Environmental
Protection Agency
Region II
26 Federal Plaza
New York, NY 10276

RE: Hooker/Ruco Site
Hicksville, New York

Dear Mr. Tomchuk:

Per our October 12, 1989 telephone conversation regarding monitor well completion specification at the Hooker/Ruco site, the following modifications to the Field Operation Plan have been implemented:

Section 2.1 - Monitor Well Installation (Page 2-3)

C. The stainless-steel screen will be set one foot from the bottom of the borehole with sufficient riser pipe to extend from the top of the screen to two feet above the ground surface. At well cluster Locations H and I; however, the shallow and deep monitor wells will be completed flush with grade in secure gate boxes. At these well locations, a watertight locking cap will be installed and the cement pad will be constructed around the gate box in such a way as to direct surface runoff away from the casing. This completion method is required because of onsite vehicular traffic in the vicinity of these wells.

HKR 001 0823

D. The annular space will be filled from the bottom of the well to two feet above the top of the screen with clean Morie No. 1 sand or equivalent. A weighted tape will periodically be placed down the annulus to ensure the gravel pack comes two feet above the screen. A bentonite seal consisting of granular bentonite in a slurry mixture will be installed above the sand pack using a Tremie pipe. The bentonite seal will be at least two feet thick. The remaining annular space will be filled with a bentonite-cement slurry (85 to 15 percent), using a Tremie pipe.

Revisions to Appendix G, table 1 concerning the matrix for chlorides, oil and grease and sulfate parameters will be submitted under separate cover.

If you have any questions or comments, please feel free to contact me.

Very truly yours,

LEGGETTE, BRASHEARS & GRAHAM, INC.

William T. West

William T. West
Senior Hydrogeologist

WTW:srf
cc: Dr. Alan Weston
Mr. John Hanna
hookruco/89-16

TECH

LEGGETTE, BRASHEARS & GRAHAM, INC.

PROFESSIONAL GROUND-WATER CONSULTANTS

R. G. SLAYBACK
G. SIDNEY FOX
FRANK H. CRUM
MICHAEL R. BURKE
ROBERT LAMONICA

72 DANBURY ROAD
WILTON, CT 06897
203-762-1207

FAX 203-762-8062

WILLIAM K. BECKMAN
DAN C. BUZEA

DOUGLAS E. SIMMONS
JOHN NASO, JR.
W. PETER BALLEAU
DAVID SCOTT
LONNIE D. NORMAN
J. KEVIN POWERS

November 1, 1989

Mr. Douglas Tomchuk
Environmental Engineer
United States Environmental Protection Agency
Region II
26 Federal Plaza
New York, NY 10276

RE: Hooker/Ruco Site
Hicksville, New York

Dear Mr. Tomchuck:

With respect to our October 24, 1989 telephone conversation regarding section 2.2, Page 2-4 of the Hooker/Ruco site Field Operations Plan (F.O.P.) which reads:

> "If a 5 ppm (parts per million) concentration results from the headspace analysis of a split-spoon sample or visual observations of stained soils are made, the sample will be tested also."

The following modifications to the F.O.P. have been implemented:

1. If a 5 ppm concentration results from the analysis of a split-spoon sample or visual observations of stained soils are made and the sample was collected from above the water table, then the sample will also be tested.

2. However, if the soil sample with a 5 ppm or greater headspace concentration occurs from below the water table, then one soil sample will be collected upon first encountering headspace concentrations greater than 5 ppm and an additional soil sample with the highest headspace reading will also be collected and tested.

HKK 001 0825

This procedure will ensure that sufficient soil sampling from sediments in the unsaturated zone are collected to accurately profile potential point sources and will minimize the collection of saturated soil samples which will be the result of regional water quality chemistry.

If you have any questions or comments regarding these revisions to the F.O.P., please contact either Mr. Robert Lamonica at (203) 762-1207 or me at (516) 931-8104.

Very truly yours,

LEGGETTE, BRASHEARS & GRAHAM, INC.

William T. West

William T. West cb
Senior Hydrogeologist

WTW:cb
cc: Dr. Alan Weston
Mr. John Hanna
hookruco/89-17

Occidental Chemical Corporation

- CERTIFIED MAIL -

November 3, 1989

Mr. Mel Hauptman
Site Compliance Branch
Emergency and Remedial Response Division
United States Environmental Protection Agency
Region II
26 Federal Plaza, Room 747
New York, New York 10278

Reference: Administrative Order on Consent
Hooker Chemical/Ruco Polymer Corp. Site
Index No. II CERCLA-80216

Dear Mr. Hauptman:

Consistent with Section 42 of the above referenced Order, attached please find the monthly progress report for the month of October, 1989.

Concentrations of tetrachloroethylene in excess of 1 mg/kg have been detected in soil samples from Sump 1. OCC believes that additional soil borings are required to more fully define the extent of tetrachloroethylene in Sump 1 soils.

Four additional borings will be drilled on the periphery of the sump as shown on the attached figure. The borings will be sampled at five foot intervals to the depth of the water table (50 to 55 feet). All splitspoon samples will be screened with a photoionization detector. The sample exhibiting the highest head space reading will be analyzed for Target Compound List volatile parameters.

If head-space readings exceed 5 parts per million in the soil samples from any of the borings, an additional boring will be drilled 25 feet further away from the sump in the apparent direction of chemical occurrence. The boring will be sampled as described above.

The permeable nature of the sediments beneath the sump, make it likely that the tetrachloroethylene infiltrated in a vertical direction until it encountered the water table. We, therefore, do not expect any significant occurrences far beyond the sump boundaries.

OxyChem
Corporate Environmental Affairs
Occidental Chemical Center
360 Rainbow Boulevard South, Box 728, Niagara Falls, New York 14302 716/286-3000

Each boring will take about half a day to a full day, depending on the materials and substances encountered. This work will be accomplished within the framework of the current investigation and will be performed in November.

Very truly yours,

Alan F. Weston

Alan F. Weston, Ph.D.
Manager, Analytical Services
Special Environmental Programs

AFW/mc
A:HAUPT.AW1
Enclosure

cc: G. Snyder
J. Ruffing

BCC: L.F. Wood, J.A. Mack, R. Lamonica, J. Hanna, T. Yagley

HKR 001 0828

OxyChem
Corporate Environmental Affairs
Occidental Chemical Center
360 Rainbow Boulevard South, Box 728, Niagara Falls, New York 14302 716/286-3000

PROGRESS REPORT

Hooker/Ruco Site, Hicksville, New York

Date: November 3, 1989
Reporting Period: October, 1989

1. Progress Made this Reporting Period

The air monitoring required to be performed during field activities was conducted 10/23/89. This completed the air monitoring requirements of the Field Operations Plan (FOP).

The test boring program was initiated 10/3/89. Forty one test borings were drilled, including an additional deep (0 to 45 feet) boring in sump No. 1. The test boring program was completed 10/24/89.

Drilling and soil sampling of well clusters G, H and I, the J well cluster pilot hole and shallow wells M-1, P-1 and Q-1 (A) were completed.

Surveying of all available test borings, EM-Station points and wells was performed 10/3, 13 and 27, 1989.

The following samples were submitted for analysis of Target Compound List (TCL) parameters, MOCA and tentatively identified compounds (TIC's).

- 117 soil
- 11 duplicate soil
- 30 field blanks
- 2 portable water blanks
- 1 casing blank

2. Problems and resolution

Heaving sands were encountered during the drilling of all deep (120 to 130 feet) monitor wells. The sands entered the hollow-stem augers and prohibited further advancement of the borehole. A stainless steel bottom plate, rather than the hollow stem plug was placed on the lead auger to prohibit excessive sand migration into the augers. Sand that did enter was removed using a 4-inch diameter dart bailer.

The bentonite pellets used to place the 2 foot bentonite seal above the gravel pack were activated when installed below water, preventing proper sealing. A thick bentonite slurry was placed using tremie pipes to ensure a proper seal. The slurry was allowed to set for a minimum of one hour prior to installing grout.

The soil gas survey was postponed due to inclement weather and will

be completed during November.

3. Upcoming Events/Activities Planned

Task	Status
- Installation of Well clusters K. L, S, T	Start date 11/6/89
- Shallow monitor well drilling	Through November
- Soil gas survey	To be completed November

4. Percentage Completed

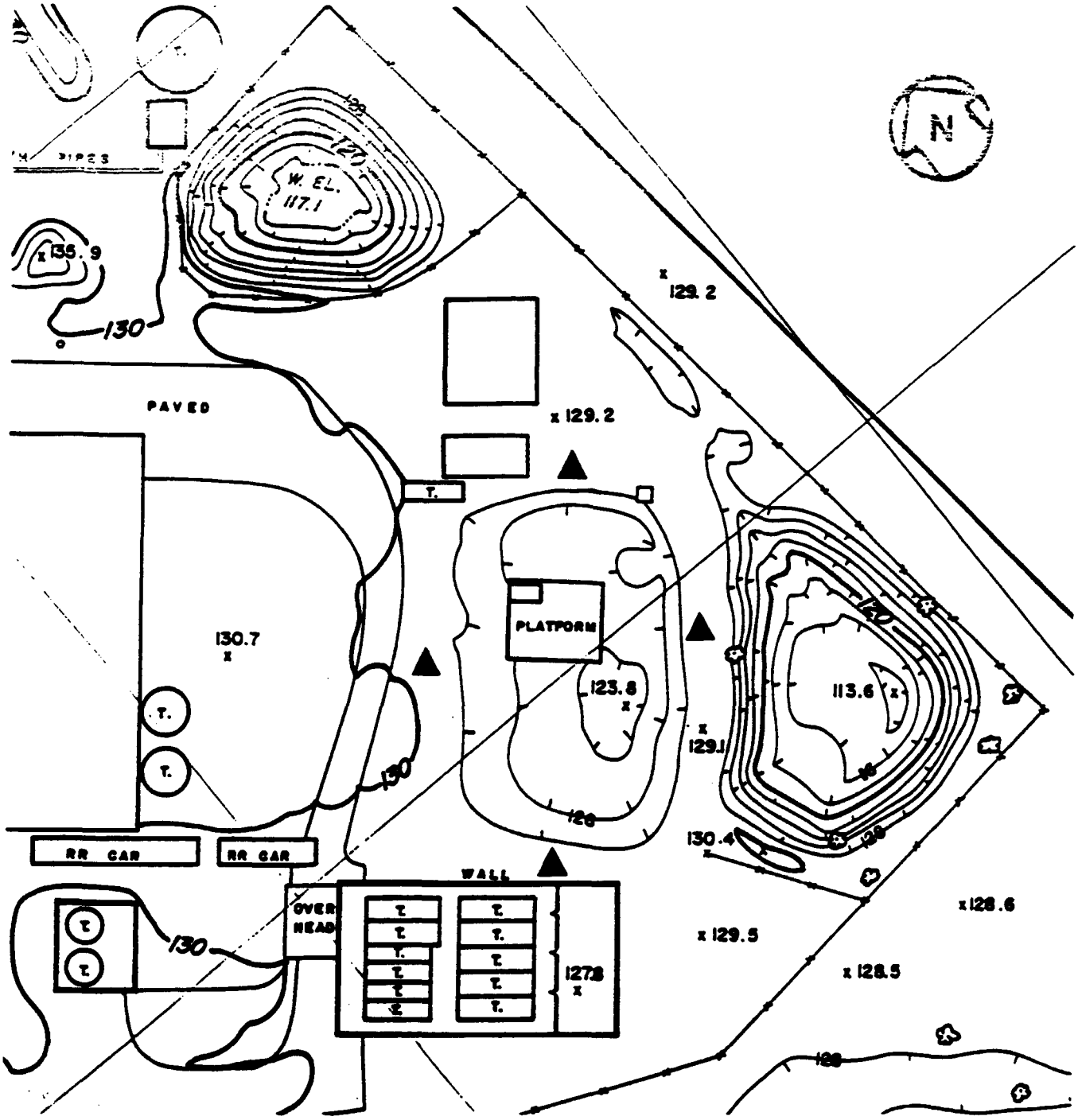
Approximately 20 percent of the Work Plan activities have been completed to date.

5. Data Generated

These data are currently being evaluated and will be presented in the RI report.

- Drilling and well logs (data collection ongoing)

AFW/mc
A:HAUPt.AW1



LEGEND

▲ PROPOSED ADDITIONAL TEST BORING

0 50

SCALE IN FEET

OCCIDENTAL CHEMICAL CORPORATION
HOOKER / RUCO SITE
HICKSVILLE, NEW YORK

LOCATIONS OF PROPOSED ADDITIONAL TEST BORINGS

DATE	REVISED

PREPARED BY:

LIEGGETTE, BRASHEARS & GRAHAM, INC.
Professional Ground-Water Consultants
72 Danbury Road
Wilton, CT 06897
203-762-1207

DATE: 10/30/89 FIGURE

TABLE 1

OCCIDENTAL CHEMICAL CORPORATION
HOOKER RUCO SITE
HICKSVILLE, NEW YORK

Monthly Progress Checklist
Month: October

Task and activity	Percentage of activity completed (percent)	Project start date early	Project start date late	Scheduled completion date	Completion date
1. Prepare and submit Field Operations Plan	100	10/01/88	10/01/88		08/21/89
2. Field Investigation					
2.0 Subcontracting	100	08/21/89	08/21/89		06/31/89
2.1, 2.8 Access agreements	75	08/21/89	08/21/89	10/01/89	
2.10 Geophysical survey	100	09/11/89	09/25/89	09/15/89	09/13/89
2.9 Air monitoring	100	09/11/89	09/25/89	09/29/89	10/23/89
2.12 Soil-gas survey	25	09/11/89	09/25/89	10/06/89	
2.1 Drilling of cluster wells	45	09/25/89	09/25/89	11/17/89	
2.13 Drilling of test borings	100	09/25/89	09/25/89	10/27/89	10/24/89
2.1 Drilling of shallow wells	40	10/30/89	11/20/89	12/08/89	
2.0 Survey	60	10/09/89	11/22/89	12/15/89	
2.1 Well development		09/28/89	10/30/89	12/15/89	
2.7 Monitor well sampling		12/04/89	12/18/89	01/12/90	

TABLE 1
(continued)

OCCIDENTAL CHEMICAL CORPORATION
HOOKER RUCO SITE
HICKSVILLE, NEW YORK

Monthly Progress Checklist
Month: October

Task and activity	Percentage of activity completed (percent)	Project start date early	Project start date late	Scheduled completion date	Completion date
2. Field Investigation (continued)					
2.11 Surface-water sampling		12/22/89	01/05/90	01/12/90	
2.6 Water-level measurements	10	09/01/89	09/15/89	01/12/90	
2.0 Demobilization		11/20/89	12/11/89	12/11/89	
2.0 Monthly progress reports		--/30/89	--/10/89		10/30/89
3. Sample Analysis/Data Validation					
A. Air samples		09/11/89	09/25/89	01/12/90	
B. Soil samples	50	09/25/89	09/25/89	01/12/90	
C. Water samples	0	12/04/89	12/18/89	02/21/90	
4. Data Evaluation					
A. Air samples		10/27/89	11/13/89	03/30/90	
B. Soil samples		11/13/89	11/13/89	03/30/90	
C. Water Samples		01/10/90	01/24/89	03/30/90	

TABLE 1
(continued)

OCCIDENTAL CHEMICAL CORPORATION
HOOKER RUCO SITE
HICKSVILLE, NEW YORK

Monthly Progress Checklist
Month: October

Task and activity	Percentage of activity completed (percent)	Project start date early	Project start date late	Scheduled completion date	Completion date
5. Prepare and Submit Remedial Investigation Report		01/11/90	04/05/90	04/05/90	
6. Remedial Alternative Screening	7	10/27/89	01/10/90	06/08/90	
7. Remedial Alternative Evaluation	7	10/27/89	01/10/90	09/07/90	
8. Prepare Feasibility Study Report	7	04/05/90[1/]	10/05/90[1/]	10/05/90	

1/ Submittal of the Feasibility Report is contingent upon the results of the Remedial Investigation.

Occidental Chemical Corporation

- CERTIFIED MAIL -

November 10, 1989

Mr. Mel Hauptman
Site Compliance Branch
Emergency and Remedial Response Division
United States Environmental Protection Agency
Region II
26 Federal Plaza, Room 747
New York, New York 10278

Reference: Administrative Order on Consent
Hooker Chemical/Ruco Polymer Corp. Site
Index No. II CERCLA-80216

Dear Mr. Hauptman:

During test boring at well location P-1, oily and dark stained soils were encountered from a depth of about 42 feet to 54 feet below grade. These soils appeared to be similar to soils encountered at well cluster E during OCC's 1982 investigation. OCC believes that additional soil borings are required to more fully define the extent of such soils.

Four additional borings will be drilled on the peirphery of the sump and to the south of P-1 as shown on the attached figure. Each boring will be completed to a depth of 55 feet below grade. The extent of oily or dark stained soils will be determined in the field by visual observation. OCC may, at its option, submit additional samples of such soil for analysis in order to further characterize chemical presence in the soils.

Very truly yours,

Alan F. Weston, Ph.D.
Manager, Analytical Services
Special Environmental Programs

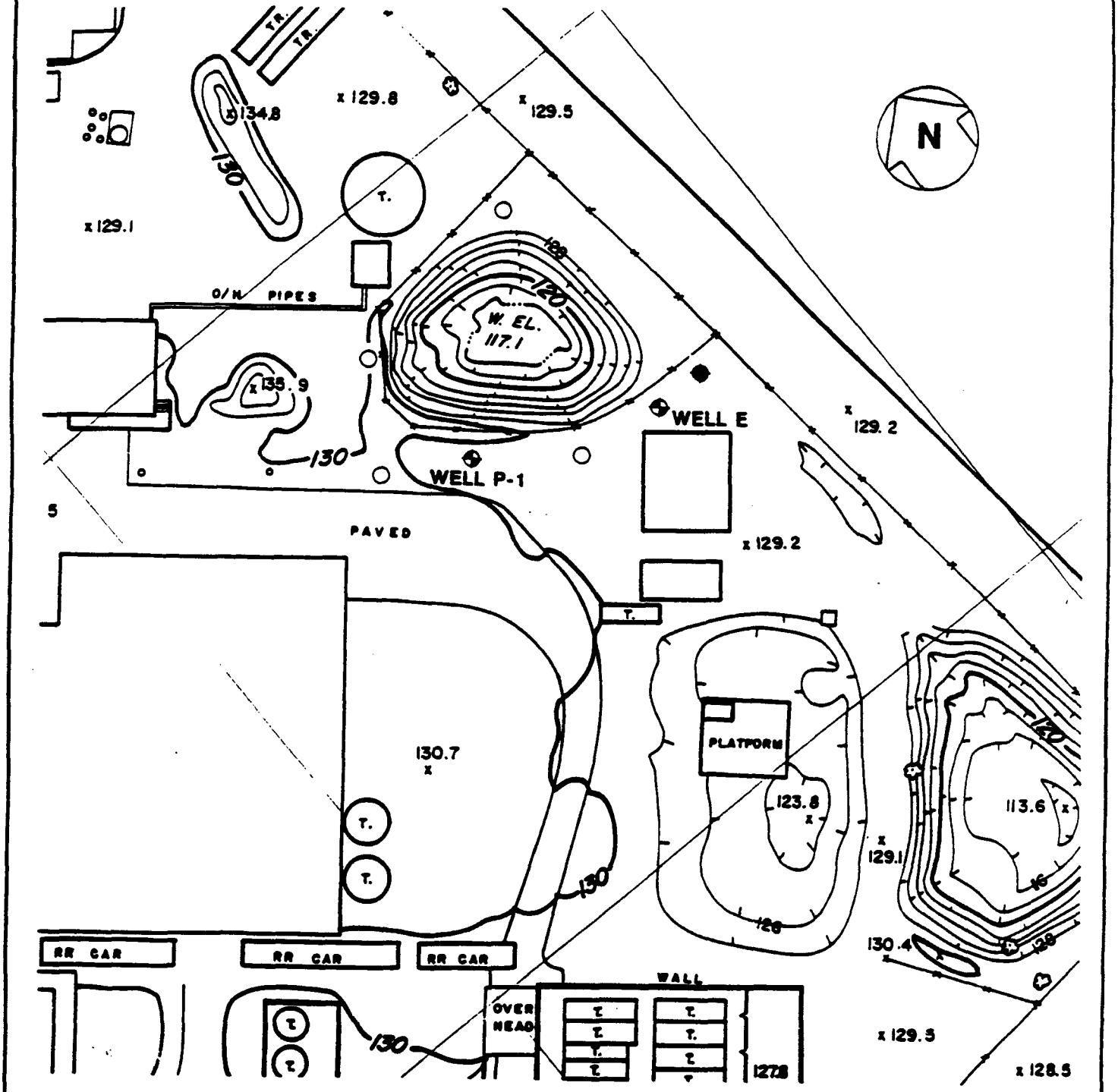
AFW/mc
A:HAUPT.AW1
Enclosure

cc: G. Snyder
J. Ruffing

BCC: L.F. Wood, J.A. Mack, R. ~~Lamonica;~~ J. Hanna, T. Yagley

HKR 001 0835

OxyChem
Special Environmental Programs
Occidental Chemical Center
360 Rainbow Boulevard South Box 728, Niagara Falls, New York 14302 716/286-3000



LEGEND

- ○ PROPOSED TEST BORINGS
- ● TEST BORING E REPLACEMENT

0 50

SCALE IN FEET

OCCIDENTAL CHEMICAL CORPORATION
RUCO POLYMER CORPORATION SITE
HICKSVILLE, NEW YORK

PROPOSED TEST BORINGS FOR PCB ANALYSIS

DATE	REVISED

PREPARED BY:

LEGGETTE, BRASHEARS & GRAHAM, INC.
Professional Ground-Water Consultants
72 Danbury Road
Wilton, CT 06897
203-762-1207

DATE: 11/7/89 FIGURE

HKR 001 0836

+ech.

LEGGETTE, BRASHEARS & GRAHAM, INC.

PROFESSIONAL GROUND-WATER CONSULTANTS

R. G. SLAYBACK
G. SIDNEY FOX
FRANK H. CRUM
MICHAEL R. BURKE
ROBERT LAMONICA

72 DANBURY ROAD
WILTON, CT 06897
203-762-1207

FAX 203-762-8062

WILLIAM K. BECKMAN
DAN C. BUZEA
JOHN NASO, JR.
J. KEVIN POWERS

DOUGLAS E. SIMMONS
W. PETER BALLEAU
DAVID SCOTT
LONNIE D. NORMAN
JEFFREY B. LENNOX
KEVIN J. MILLER
FRANK J. GETCHELL

February 7, 1990

Mr. Douglas Tomchuk
Environmental Engineer
United States Environmental
Protection Agency
Region II
26 Federal Plaza
New York, NY 10276

RE: Hooker/Ruco Site
Hicksville, New York

Dear Mr. Tomchuk:

As discussed during our January 25, 1990 telephone conversation regarding ground-water sampling of the existing offsite monitor wells at the Hooker/Ruco site, two of the originally proposed five monitor wells cannot be measured or sampled. Field observations at Well N10596 indicate that the well has been destroyed by highway construction. Telephone conversations with the United States Geological Survey (USGS) regarding well N-6620 revealed that this private industrial supply well is equipped with a submersible pump and is hand piped into a storage tank. Only composite water samples, collected from the effluent discharge of the storage tank can be obtained. The USGS has deleted this well from their current ground-water sampling program. Because neither wells N-6620 or N-10596 will provide representative water-quality samples, an adjacent USGS Well N-10594, located approximately 400 feet southeast of the Hooker/Ruco site along South Oyster Bay Road has been selected to provide additional downgradient water-quality information.

Ground-water sampling of Well N-10594 requires the following modifications to the Hooker/Ruco Field Operations Plan:

HKR 001 0837

2.7 Ground-Water Sampling (Page 2-6)

Ground-water samples will be obtained from the 38 existing and proposed onsite and offsite well shown on figures 1 and 2.

Figure 2 has been modified to show the location of Well N-10594. A revised copy of figure 2 is attached.

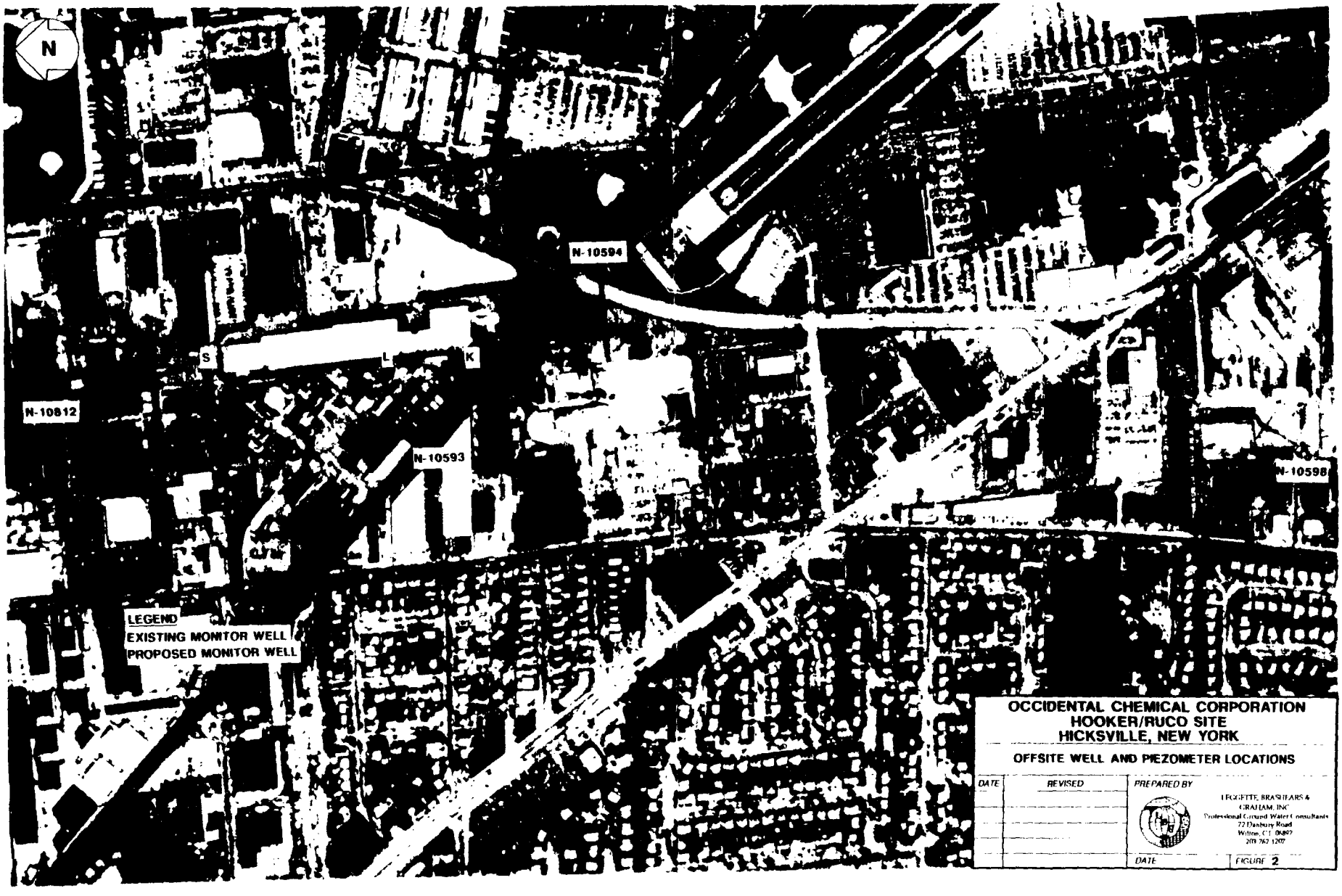
If you have any questions or comments, please feel free to contact me so we can discuss this matter further.

Very truly yours,

LEGGETTE, BRASHEARS & GRAHAM, INC.

William T. West
Senior Hydrogeologist

WTW:skd
Enclosures
cc: Dr. Alan Weston
Mr. John Hanna
wes892



OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

OFFSITE WELL AND PIEZOMETER LOCATIONS

DATE	REVISED	PREPARED BY
		LEGGETTE, BRASHEARS & GRAHAM, INC. Professional Ground Water Consultants, 72 Danbury Road, Wilton, CT 06897, 203 762 1207
		DATE: FIGURE 2

APPENDIX 6

Water-Level Measurements

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
A-1	10/13/89	137.51	65.02	72.49
	10/27/89	137.51	64.46	73.05
	11/09/89	137.51	63.92	73.59
	11/22/89	137.51	63.67	73.84
	12/08/89	137.51	63.46	74.05
	12/22/89	137.51	63.45	74.06
	01/05/90	137.51	63.52	73.99
	01/22/90	137.51	63.50	74.01
	01/31/90	137.51	63.55	73.96
	02/23/90	137.51	63.20	74.31
A-2	10/13/89	136.73	64.43	72.30
	10/27/89	136.73	63.82	72.91
	11/09/89	136.73	63.48	73.25
	11/22/89	136.73	62.99	73.74
	12/08/89	136.73	62.80	73.93
	12/22/89	136.73	62.84	73.89
	01/05/90	136.73	62.90	73.83
	01/22/90	136.73	62.85	73.88
	01/31/90	136.73	62.94	73.79
	02/23/90	136.73	62.58	74.15
B-1	10/02/89	132.65	60.72	71.93
	10/13/89	132.65	60.52	72.13
	10/27/89	132.65	59.86	72.79
	11/09/89	132.65	59.51	73.14
	11/22/89	132.65	59.17	73.48
	12/08/89	132.65	58.86	73.79
	12/22/89	132.65	58.78	73.87
	01/05/90	132.65	58.83	73.82

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
B-1 (continued)	01/22/90	132.65	58.87	73.78
	01/31/90	132.65	58.85	73.80
	02/23/90	132.65	58.57	74.08
B-2	10/02/89	132.65	60.76	71.89
	10/13/89	132.65	60.53	72.12
	10/27/89	132.65	59.91	72.74
	11/09/89	132.65	59.55	73.10
	11/22/89	132.65	59.18	73.47
	12/08/89	132.65	58.84	73.81
	12/22/89	132.65	58.81	73.84
	01/05/90	132.65	58.86	73.79
	01/22/90	132.65	58.89	73.76
	01/31/90	132.65	58.84	73.81
	02/23/90	132.65	58.61	74.04
C-1	10/02/89	135.61	61.82	73.79
	10/13/89	135.61	62.51	73.10
	10/27/89	135.61	62.27	73.34
	11/09/89	135.61	61.77	73.84
	11/22/89	135.61	61.44	74.17
	12/08/89	135.61	61.34	74.27
	12/22/89	135.61	61.28	74.33
	01/05/90	135.61	61.43	74.18
	01/22/90	135.61	61.47	74.14
	01/31/90	135.61	61.57	74.04
	02/23/90	135.61	60.90	74.71

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
C-2	10/02/89	135.55	61.81	73.74
	10/13/89	135.55	63.56	71.99
	10/27/89	135.55	63.08	72.47
	11/09/89	135.55	62.63	72.92
	11/22/89	135.55	62.16	73.39
	12/08/89	135.55	61.98	73.57
	12/22/89	135.55	61.93	73.62
	01/05/90	135.55	62.80	72.75
	01/22/90	135.55	62.02	73.53
	01/31/90	135.55	62.04	73.51
	02/23/90	135.55	61.65	73.90
D-1	10/02/89	132.35	60.49	71.86
	10/13/89	132.25	61.26	71.09
	10/22/89	132.35	60.57	71.78
	11/09/89	132.25	59.19	73.16
	11/22/89	132.35	58.98	73.37
	12/08/89	132.35	58.73	73.62
	12/22/89	132.35	58.70	73.65
	01/05/90	132.35	58.76	73.59
	01/22/90	132.35	58.98	73.37
	01/31/90	132.35	58.75	73.60
	02/23/90	132.35	58.48	73.87
D-2	10/02/89	132.21	60.60	71.61
	10/13/89	132.21	60.41	71.80
	10/22/89	132.21	59.78	72.43
	11/09/89	132.21	59.37	72.84
	11/22/89	132.21	59.00	73.21

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
D-2 (continued)	12/08/89	132.21	58.79	73.42
	12/22/89	132.21	58.76	73.45
	01/05/90	132.21	58.82	73.39
	01/22/90	132.21	58.84	73.37
	01/31/90	132.21	58.79	73.42
	02/23/90	132.21	58.60	73.61
E-1	10/02/89	131.98	60.20	71.78
	10/13/89	131.98	60.08	71.90
	10/22/89	131.98	59.30	72.68
	11/09/89	131.98	58.99	72.99
	11/22/89	131.98	58.65	73.33
	12/08/89	131.98	58.47	73.51
	12/22/89	131.98	58.46	73.52
	01/05/90	131.98	57.75	74.23?
	01/22/90	131.98	58.52	73.46
	01/31/90	131.98	58.28	73.70
	02/23/90	131.98	58.33	73.65
E-2	10/02/89	131.71	60.06	71.65
	10/13/89	131.71	59.89	71.82
	10/22/89	131.71	59.18	72.53
	11/09/89	131.71	58.80	72.91
	11/22/89	131.71	58.47	73.24
	12/08/89	131.71	58.28	73.43
	12/22/89	131.71	58.29	73.42
	01/05/90	131.71	58.31	73.40

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
E-2 (continued)	01/22/90	131.71	58.35	73.36
	01/31/90	131.71	58.24	73.47
	02/23/90	131.71	58.13	73.58
F-1	10/02/89	131.81	60.49	71.32
	10/13/89	131.81	60.28	71.53
	10/27/89	131.81	59.66	72.15
	11/09/89	131.81	59.20	72.61
	11/22/89	131.81	58.88	72.93
	12/08/89	131.81	58.68	73.13
	12/22/89	131.81	58.62	73.19
	01/05/90	131.81	58.68	73.13
	01/22/90	131.81	58.73	73.08
	01/31/90	131.81	58.52	73.29
	02/23/89	131.81	58.48	73.33
F-2	10/02/89	131.54	60.28	71.26
	10/13/89	131.54	60.12	71.42
	10/27/89	131.54	59.56	71.98
	11/09/89	131.54	59.07	72.47
	11/22/89	131.54	58.70	72.84
	12/08/89	131.54	58.50	73.04
	12/22/89	131.54	58.45	73.09
	01/05/90	131.54	58.53	73.01
	01/22/90	131.54	58.55	72.99
	01/31/90	131.54	58.67	72.87
	02/23/90	131.54	58.34	73.20

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
G-1	10/13/89	130.91	59.07	71.84
	10/27/89	130.91	58.43	72.48
	11/09/89	130.91	58.06	72.85
	11/22/89	130.91	57.70	73.21
	12/08/89	130.91	57.37	73.54
	12/22/89	130.91	57.31	73.60
	01/05/90	130.91	57.47	73.44
	01/22/90	130.91	57.89	73.02
	01/31/90	130.91	57.30	73.61
	02/23/90	130.91	58.14	72.77
G-2	10/27/89	130.56	58.57	71.99
	11/09/89	130.56	57.78	72.78
	11/22/89	130.56	57.61	72.95
	12/08/89	130.56	57.05	73.51
	12/22/89	130.56	57.00	73.56
	01/05/90	130.56	57.06	73.50
	01/22/90	130.56	57.05	73.51
	01/31/90	130.56	57.04	73.52
	02/23/90	130.56	57.15	73.41
H-1	10/13/89	130.39	58.16	72.23
	10/27/89	130.39	57.47	72.92
	11/09/89	130.39	58.07	72.32
	11/22/89	130.39	57.39	73.00
	12/08/89	130.39	57.02	73.37
	12/22/89	130.39	57.15	73.24
	01/05/90	130.39	57.17	73.22

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
H-1	01/22/90	130.39	57.24	73.15
(continued)	01/31/90	130.39	57.32	73.07
	02/23/90	130.39	57.20	73.19
H-2	10/13/89	130.17	58.35	71.82
	10/27/89	130.17	58.47	71.70
	11/09/89	130.17	57.83	72.34
	11/22/80	130.17	57.22	72.95
	12/08/89	130.17	56.94	73.23
	12/22/89	130.17	56.90	73.27
	01/05/90	130.17	56.92	73.25
	01/22/90	130.17	56.94	73.23
	01/31/90	130.17	56.91	73.26
	02/23/90	130.17	56.76	73.41
I-1	10/27/89	129.68	57.69	71.99
	11/09/89	129.68	57.14	72.54
	11/22/89	129.68	56.74	72.94
	12/08/89	129.68	56.47	73.21
	12/22/89	129.68	56.39	73.29
	01/05/90	129.68	56.47	73.21
	01/22/90	129.68	56.47	73.21
	01/31/90	129.68	56.47	73.21
	02/23/90	129.68	56.28	73.40
I-2	10/27/89	130.02	57.99	72.03
	11/09/89	130.02	57.60	72.42
	11/22/80	130.02	57.09	72.93
	12/08/89	130.02	56.95	73.07

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
I-2 (continued)	12/22/89	130.02	56.81	73.21
	01/05/90	130.02	56.84	73.18
	01/22/90	130.02	56.88	73.14
	01/31/90	130.02	56.77	73.25
	02/23/90	130.02	56.19	73.83
J-1	11/09/89	132.29	59.76	72.53
	11/22/89	132.29	59.47	72.82
	12/08/89	132.29	59.19	73.10
	12/22/89	132.29	59.12	73.17
	01/05/90	132.29	59.19	73.10
	01/22/90	132.29	59.23	73.06
	01/31/90	132.29	59.23	73.06
	02/23/90	132.29	58.99	73.30
J-2	11/09/89	132.28	59.89	72.39
	11/22/89	132.28	59.44	72.84
	12/08/89	132.28	59.26	73.02
	12/22/89	132.28	59.19	73.09
	01/05/90	132.28	59.27	73.01
	01/22/90	132.28	59.30	72.98
	01/31/90	132.28	59.26	73.02
	02/23/90	132.28	59.10	73.19
K-1	11/22/89	130.56	57.78	72.78
	12/08/89	130.56	57.56	73.00
	12/22/89	130.56	57.56	73.00
	01/05/90	130.56	57.60	72.96
	01/22/90	130.56	57.62	72.94

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
K-1	01/31/90	130.56	57.63	72.93
(continued)	02/23/90	130.56	57.31	73.25
K-2	11/22/89	130.55	57.79	72.76
	12/08/89	130.55	57.60	72.95
	12/22/89	130.55	57.58	72.97
	01/05/90	130.55	57.65	72.90
	01/22/90	130.55	57.64	72.91
	01/31/90	130.55	58.64	71.91
	02/23/90	130.55	57.51	73.04
L-1	12/08/89	131.52	57.99	73.53
	12/22/89	131.52	58.07	73.45
	01/05/90	131.52	58.10	73.42
	01/22/90	131.52	58.09	73.43
	01/31/90	131.52	57.98	73.54
	02/23/90	131.52	57.89	73.63
L-2	12/08/89	131.68	58.37	73.31
	12/22/89	131.68	58.39	73.29
	01/05/90	131.68	58.44	73.24
	01/22/90	131.68	58.43	73.25
	01/31/90	131.68	58.40	73.28
	02/23/90	131.68	58.28	73.40
M-1	11/09/89	135.61	62.60	73.01
	11/22/89	135.61	62.25	73.36
	12/08/89	135.61	61.94	73.67
	12/22/89	135.61	61.89	73.72

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
M-1 (continued)	01/05/90	135.61	61.94	73.67
	01/22/90	135.61	61.97	73.64
	01/31/90	135.61	62.30	73.31
	02/23/90	135.61	61.68	73.93
N-1	11/09/89	134.23	60.54	73.69
	11/22/89	134.23	60.25	73.98
	12/08/89	134.23	59.99	74.24
	12/22/89	134.23	59.92	74.31
	01/05/90	134.23	60.11	74.12
	01/22/90	134.23	60.16	74.07
	01/31/90	134.23	60.21	74.11
	02/23/90	134.23	59.74	74.49
O-1	11/09/89	134.75	61.44	73.31
	11/22/89	134.75	61.17	73.58
	12/08/89	134.75	60.89	73.86
	12/22/89	134.75	60.85	73.90
	01/05/90	134.75	60.92	73.83
	01/22/90	134.75	60.97	73.78
	01/31/90	134.75	61.03	73.72
	02/23/90	134.75	60.61	74.14
P-1	11/09/89	132.32	59.35	72.97
	11/22/89	132.32	59.04	73.28
	12/08/89	132.32	58.85	73.47
	12/22/89	132.32	58.84	73.48
	01/05/90	132.32	58.89	73.43
	01/22/90	132.32	58.90	73.42

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
P-1 (continued)	01/31/90	132.32	58.68	73.64
	02/23/90	132.32	58.73	73.59
Q-1	11/09/89	132.70	59.95	72.75
	11/22/89	132.70	59.57	73.13
	12/08/89	132.70	59.26	73.44
	12/22/89	132.70	59.16	73.54
	01/05/90	132.70	59.20	73.50
	01/22/90	132.70	59.23	73.47
	01/31/90	132.70	59.22	73.48
	02/23/90	132.70	59.04	73.66
R-1	11/09/89	136.07	59.97	76.10
	11/22/89	136.07	61.69	74.38
	12/08/89	136.07	61.50	74.57
	12/22/89	136.07	61.57	74.50
	01/05/90	136.07	61.06	75.01
	01/22/90	136.07	61.73	74.34
	01/31/90	136.07	61.86	74.21
	02/23/90	136.07	61.34	74.73
S-1	12/22/89	133.21	57.60	75.61
	01/05/90	133.21	57.94	75.27
	01/22/90	133.21	57.93	75.28
	01/31/90	133.21	57.99	75.22
	02/23/90	133.21	57.28	75.93

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
S-2	12/22/89	133.21	58.91	74.30
	01/05/90	133.21	59.27	73.94
	01/22/90	133.21	59.23	73.98
	01/31/90	133.21	59.10	74.11
	02/23/90	133.21	59.39	73.82
T-1	12/08/89	131.21	57.52	73.69
	12/22/89	131.21	57.57	73.64
	01/05/90	131.21	57.64	73.57
	01/22/90	131.21	57.63	73.58
	01/31/90	131.21	57.64	73.57
	02/23/90	131.21	57.32	73.89
T-2	12/08/89	131.37	57.86	73.51
	12/22/89	131.37	57.92	73.45
	01/05/90	131.37	57.95	73.42
	01/22/90	131.37	57.96	73.41
	01/31/90	131.37	57.92	73.45
	02/23/90	131.37	57.71	73.66
PM-1	12/08/89	132.87	59.32	73.55
	12/22/89	132.87	59.22	73.65
	01/05/90	132.87	59.23	73.64
	01/22/90	132.87	59.24	73.63
	01/31/90	132.87	59.21	73.66
PM-2	12/08/89	127.99	55.37	72.62
	12/22/89	127.99	55.24	72.75
	01/05/90	127.99	55.26	72.73

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
PM-2 (continued)	01/22/90	127.99	55.29	72.70
	01/31/90	127.99	55.34	72.65
P-3	10/13/89	134.30	62.03	72.27
	10/27/89	134.30	61.67	72.63
	11/09/89	134.30	61.20	73.10
	11/22/89	134.30	60.83	73.47
	12/08/89	134.30	60.72	73.58
	12/22/89	134.30	60.91	73.39
	01/05/90	134.30	60.97	73.33
	01/23/90	134.30	61.02	73.28
	01/31/90	134.30	61.01	73.29
P-4	10/13/89	129.87	58.42	71.45
	10/27/89	129.87	57.03	72.84
	11/09/89	129.87	57.38	72.49
	11/22/89	129.87	57.02	72.85
	12/08/89	129.87	56.93	72.94
	12/22/89	129.87	57.02	72.85
	01/05/90	129.87	57.06	72.81
	01/23/90	129.87	57.08	72.79
	01/31/90	129.87	57.08	72.79
N10812	10/02/89	135.54	62.67	72.87
	10/13/89	135.54	62.47	73.07
	10/27/89	135.54	61.98	73.56
	11/09/89	135.54	61.50	74.04
	11/22/89	135.54	61.15	74.39
	12/08/89	135.54	61.00	74.54

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
N10812 (continued)	12/22/89	135.54	61.00	74.54
	01/05/90	135.54	61.06	74.48
	01/22/90	135.54	61.08	74.46
	01/31/90	135.54	61.07	74.47
	02/23/90	135.54	60.70	74.84
N10594	10/02/89	126.66	55.79	70.87
	10/13/89	126.66	55.64	71.02
	10/27/89	126.66	55.19	71.47
	11/09/89	126.66	54.57	72.09
	11/22/89	126.66	54.23	72.43
	12/08/89	126.66	54.10	72.56
	12/22/89	126.66	54.09	72.57
	01/05/90	126.66	54.16	72.50
	01/22/90	126.66	54.16	72.50
	01/31/90	126.66	54.28	72.38
	02/23/90	126.66	54.10	72.56
N10599	10/02/89	107.60	38.49	69.11
	10/13/89	107.60	38.89	68.71
	10/27/89	107.60	38.72	68.88
	11/09/89	107.60	38.48	69.12
	11/22/89	107.60	38.37	69.23
	12/08/89	107.60	38.93	68.67
	12/22/89	107.60	39.19	68.41
	01/05/90	107.60	39.49	68.11
	01/22/90	107.60	39.66	67.94
	01/31/90	107.60	39.52	68.08
	02/23/90	107.60	39.99	67.61

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
Plant Well 1	10/13/89	124.20	52.93	71.27
	10/27/89	124.20	52.93	71.27
	11/09/89	124.20	51.95	72.25
	11/22/89	124.20	--	--
	12/08/89	124.20	51.24	72.96
	12/22/89	124.20	51.20	73.00
	01/05/90	124.20	51.20	73.00
	01/22/90	124.20	--	--
	01/31/90	124.20	51.22	72.98
	02/23/90	124.20	51.07	73.13
N10630	10/13/89	110.66	41.07	69.59
	10/27/89	110.66	40.87	69.79
	11/09/89	110.66	40.38	70.28
	11/22/89	110.66	40.17	70.49
	12/08/89	110.66	40.36	70.30
	12/22/89	110.66	40.34	70.32
	01/05/90	--	--	--
	01/22/90	110.66	41.08	69.58
	01/31/90	--	--	--
	02/23/90	110.66	40.75	69.91
N10597	10/02/89	109.85	40.54	69.31
	10/13/89	109.85	40.47	69.38
	10/27/89	109.85	39.88	69.97
	11/09/89	109.85	39.47	70.38
	11/22/89	109.85	39.32	70.53
	12/08/89	109.85	39.52	70.33
	12/22/89	109.85	39.57	70.28

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
N10597 (continued)	01/05/90	109.85	39.60	70.25
	01/22/90	109.85	39.74	70.11
	01/31/90	109.85	39.48	70.37
	02/23/90	109.85	39.92	69.93
N10593	10/02/89	128.50	57.31	71.19
	10/13/89	128.50	57.12	71.38
	10/27/89	128.50	56.59	71.91
	11/09/89	128.50	56.06	72.44
	11/22/89	128.50	55.68	72.82
	12/08/89	128.50	55.47	73.03
	12/22/89	128.50	55.41	73.09
	01/05/90	128.50	55.46	73.04
	01/22/90	128.50	55.47	73.03
	01/31/90	128.50	55.52	72.98
	02/23/90	128.50	55.27	73.23
N10598	10/02/89	106.48	37.10	69.38
	10/13/89	106.48	37.27	69.21
	10/27/89	106.48	36.50	69.98
	11/09/89	106.48	36.32	70.16
	11/22/89	106.48	36.34	70.14
	12/08/89	106.48	36.83	70.10
	12/22/89	106.48	36.96	69.52
	01/05/90	106.48	36.98	69.50
	01/22/90	106.48	37.16	69.32
	01/31/90	106.48	36.52	69.96
	02/23/90	106.48	37.50	68.98

-- Denotes fluid-level measurement was not collected.

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
B-1 (continued)	01/22/90	132.65	58.87	73.78
	01/31/90	132.65	58.85	73.80
	02/23/90	132.65	58.57	74.08
B-2	10/02/89	132.65	60.76	71.89
	10/13/89	132.65	60.53	72.12
	10/27/89	132.65	59.91	72.74
	11/09/89	132.65	59.55	73.10
	11/22/89	132.65	59.18	73.47
	12/08/89	132.65	58.84	73.81
	12/22/89	132.65	58.81	73.84
	01/05/90	132.65	58.86	73.79
	01/22/90	132.65	58.89	73.76
	01/31/90	132.65	58.84	73.81
	02/23/90	132.65	58.61	74.04
C-1	10/02/89	135.61	61.82	73.79
	10/13/89	135.61	62.51	73.10
	10/27/89	135.61	62.27	73.34
	11/09/89	135.61	61.77	73.84
	11/22/89	135.61	61.44	74.17
	12/08/89	135.61	61.34	74.27
	12/22/89	135.61	61.28	74.33
	01/05/90	135.61	61.43	74.18
	01/22/90	135.61	61.47	74.14
	01/31/90	135.61	61.57	74.04
	02/23/90	135.61	60.90	74.71

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
C-2	10/02/89	135.55	61.81	73.74
	10/13/89	135.55	63.56	71.99
	10/27/89	135.55	63.08	72.47
	11/09/89	135.55	62.63	72.92
	11/22/89	135.55	62.16	73.39
	12/08/89	135.55	61.98	73.57
	12/22/89	135.55	61.93	73.62
	01/05/90	135.55	62.80	72.75
	01/22/90	135.55	62.02	73.53
	01/31/90	135.55	62.04	73.51
	02/23/90	135.55	61.65	73.90
D-1	10/02/89	132.35	60.49	71.86
	10/13/89	132.25	61.26	71.09
	10/22/89	132.35	60.57	71.78
	11/09/89	132.25	59.19	73.16
	11/22/89	132.35	58.98	73.37
	12/08/89	132.35	58.73	73.62
	12/22/89	132.35	58.70	73.65
	01/05/90	132.35	58.76	73.59
	01/22/90	132.35	58.98	73.37
	01/31/90	132.35	58.75	73.60
	02/23/90	132.35	58.48	73.87
D-2	10/02/89	132.21	60.60	71.61
	10/13/89	132.21	60.41	71.80
	10/22/89	132.21	59.78	72.43
	11/09/89	132.21	59.37	72.84
	11/22/89	132.21	59.00	73.21

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
D-2 (continued)	12/08/89	132.21	58.79	73.42
	12/22/89	132.21	58.76	73.45
	01/05/90	132.21	58.82	73.39
	01/22/90	132.21	58.84	73.37
	01/31/90	132.21	58.79	73.42
	02/23/90	132.21	58.60	73.61
E-1	10/02/89	131.98	60.20	71.78
	10/13/89	131.98	60.08	71.90
	10/22/89	131.98	59.30	72.68
	11/09/89	131.98	58.99	72.99
	11/22/89	131.98	58.65	73.33
	12/08/89	131.98	58.47	73.51
	12/22/89	131.98	58.46	73.52
	01/05/90	131.98	57.75	74.23?
	01/22/90	131.98	58.52	73.46
	01/31/90	131.98	58.28	73.70
	02/23/90	131.98	58.33	73.65
E-2	10/02/89	131.71	60.06	71.65
	10/13/89	131.71	59.89	71.82
	10/22/89	131.71	59.18	72.53
	11/09/89	131.71	58.80	72.91
	11/22/89	131.71	58.47	73.24
	12/08/89	131.71	58.28	73.43
	12/22/89	131.71	58.29	73.42
	01/05/90	131.71	58.31	73.40

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
E-2	01/22/90	131.71	58.35	73.36
(continued)	01/31/90	131.71	58.24	73.47
	02/23/90	131.71	58.13	73.58
F-1	10/02/89	131.81	60.49	71.32
	10/13/89	131.81	60.28	71.53
	10/27/89	131.81	59.66	72.15
	11/09/89	131.81	59.20	72.61
	11/22/89	131.81	58.88	72.93
	12/08/89	131.81	58.68	73.13
	12/22/89	131.81	58.62	73.19
	01/05/90	131.81	58.68	73.13
	01/22/90	131.81	58.73	73.08
	01/31/90	131.81	58.52	73.29
	02/23/89	131.81	58.48	73.33
F-2	10/02/89	131.54	60.28	71.26
	10/13/89	131.54	60.12	71.42
	10/27/89	131.54	59.56	71.98
	11/09/89	131.54	59.07	72.47
	11/22/89	131.54	58.70	72.84
	12/08/89	131.54	58.50	73.04
	12/22/89	131.54	58.45	73.09
	01/05/90	131.54	58.53	73.01
	01/22/90	131.54	58.55	72.99
	01/31/90	131.54	58.67	72.87
	02/23/90	131.54	58.34	73.20

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
G-1	10/13/89	130.91	59.07	71.84
	10/27/89	130.91	58.43	72.48
	11/09/89	130.91	58.06	72.85
	11/22/89	130.91	57.70	73.21
	12/08/89	130.91	57.37	73.54
	12/22/89	130.91	57.31	73.60
	01/05/90	130.91	57.47	73.44
	01/22/90	130.91	57.89	73.02
	01/31/90	130.91	57.30	73.61
	02/23/90	130.91	58.14	72.77
G-2	10/27/89	130.56	58.57	71.99
	11/09/89	130.56	57.78	72.78
	11/22/89	130.56	57.61	72.95
	12/08/89	130.56	57.05	73.51
	12/22/89	130.56	57.00	73.56
	01/05/90	130.56	57.06	73.50
	01/22/90	130.56	57.05	73.51
	01/31/90	130.56	57.04	73.52
	02/23/90	130.56	57.15	73.41
H-1	10/13/89	130.39	58.16	72.23
	10/27/89	130.39	57.47	72.92
	11/09/89	130.39	58.07	72.32
	11/22/89	130.39	57.39	73.00
	12/08/89	130.39	57.02	73.37
	12/22/89	130.39	57.15	73.24
	01/05/90	130.39	57.17	73.22

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
H-1 (continued)	01/22/90	130.39	57.24	73.15
	01/31/90	130.39	57.32	73.07
	02/23/90	130.39	57.20	73.19
H-2	10/13/89	130.17	58.35	71.82
	10/27/89	130.17	58.47	71.70
	11/09/89	130.17	57.83	72.34
	11/22/80	130.17	57.22	72.95
	12/08/89	130.17	56.94	73.23
	12/22/89	130.17	56.90	73.27
	01/05/90	130.17	56.92	73.25
	01/22/90	130.17	56.94	73.23
	01/31/90	130.17	56.91	73.26
	02/23/90	130.17	56.76	73.41
I-1	10/27/89	129.68	57.69	71.99
	11/09/89	129.68	57.14	72.54
	11/22/89	129.68	56.74	72.94
	12/08/89	129.68	56.47	73.21
	12/22/89	129.68	56.39	73.29
	01/05/90	129.68	56.47	73.21
	01/22/90	129.68	56.47	73.21
	01/31/90	129.68	56.47	73.21
	02/23/90	129.68	56.28	73.40
I-2	10/27/89	130.02	57.99	72.03
	11/09/89	130.02	57.60	72.42
	11/22/80	130.02	57.09	72.93
	12/08/89	130.02	56.95	73.07

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
I-2 (continued)	12/22/89	130.02	56.81	73.21
	01/05/90	130.02	56.84	73.18
	01/22/90	130.02	56.88	73.14
	01/31/90	130.02	56.77	73.25
	02/23/90	130.02	56.19	73.83
J-1	11/09/89	132.29	59.76	72.53
	11/22/89	132.29	59.47	72.82
	12/08/89	132.29	59.19	73.10
	12/22/89	132.29	59.12	73.17
	01/05/90	132.29	59.19	73.10
	01/22/90	132.29	59.23	73.06
	01/31/90	132.29	59.23	73.06
	02/23/90	132.29	58.99	73.30
J-2	11/09/89	132.28	59.89	72.39
	11/22/89	132.28	59.44	72.84
	12/08/89	132.28	59.26	73.02
	12/22/89	132.28	59.19	73.09
	01/05/90	132.28	59.27	73.01
	01/22/90	132.28	59.30	72.98
	01/31/90	132.28	59.26	73.02
	02/23/90	132.28	59.10	73.19
K-1	11/22/89	130.56	57.78	72.78
	12/08/89	130.56	57.56	73.00
	12/22/89	130.56	57.56	73.00
	01/05/90	130.56	57.60	72.96
	01/22/90	130.56	57.62	72.94

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
K-1	01/31/90	130.56	57.63	72.93
(continued)	02/23/90	130.56	57.31	73.25
K-2	11/22/89	130.55	57.79	72.76
	12/08/89	130.55	57.60	72.95
	12/22/89	130.55	57.58	72.97
	01/05/90	130.55	57.65	72.90
	01/22/90	130.55	57.64	72.91
	01/31/90	130.55	58.64	71.91
	02/23/90	130.55	57.51	73.04
L-1	12/08/89	131.52	57.99	73.53
	12/22/89	131.52	58.07	73.45
	01/05/90	131.52	58.10	73.42
	01/22/90	131.52	58.09	73.43
	01/31/90	131.52	57.98	73.54
	02/23/90	131.52	57.89	73.63
L-2	12/08/89	131.68	58.37	73.31
	12/22/89	131.68	58.39	73.29
	01/05/90	131.68	58.44	73.24
	01/22/90	131.68	58.43	73.25
	01/31/90	131.68	58.40	73.28
	02/23/90	131.68	58.28	73.40
M-1	11/09/89	135.61	62.60	73.01
	11/22/89	135.61	62.25	73.36
	12/08/89	135.61	61.94	73.67
	12/22/89	135.61	61.89	73.72

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
M-1 (continued)	01/05/90	135.61	61.94	73.67
	01/22/90	135.61	61.97	73.64
	01/31/90	135.61	62.30	73.31
	02/23/90	135.61	61.68	73.93
N-1	11/09/89	134.23	60.54	73.69
	11/22/89	134.23	60.25	73.98
	12/08/89	134.23	59.99	74.24
	12/22/89	134.23	59.92	74.31
	01/05/90	134.23	60.11	74.12
	01/22/90	134.23	60.16	74.07
	01/31/90	134.23	60.21	74.11
	02/23/90	134.23	59.74	74.49
O-1	11/09/89	134.75	61.44	73.31
	11/22/89	134.75	61.17	73.58
	12/08/89	134.75	60.89	73.86
	12/22/89	134.75	60.85	73.90
	01/05/90	134.75	60.92	73.83
	01/22/90	134.75	60.97	73.78
	01/31/90	134.75	61.03	73.72
	02/23/90	134.75	60.61	74.14
P-1	11/09/89	132.32	59.35	72.97
	11/22/89	132.32	59.04	73.28
	12/08/89	132.32	58.85	73.47
	12/22/89	132.32	58.84	73.48
	01/05/90	132.32	58.89	73.43
	01/22/90	132.32	58.90	73.42

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
P-1 (continued)	01/31/90	132.32	58.68	73.64
	02/23/90	132.32	58.73	73.59
Q-1	11/09/89	132.70	59.95	72.75
	11/22/89	132.70	59.57	73.13
	12/08/89	132.70	59.26	73.44
	12/22/89	132.70	59.16	73.54
	01/05/90	132.70	59.20	73.50
	01/22/90	132.70	59.23	73.47
	01/31/90	132.70	59.22	73.48
	02/23/90	132.70	59.04	73.66
R-1	11/09/89	136.07	59.97	76.10
	11/22/89	136.07	61.69	74.38
	12/08/89	136.07	61.50	74.57
	12/22/89	136.07	61.57	74.50
	01/05/90	136.07	61.06	75.01
	01/22/90	136.07	61.73	74.34
	01/31/90	136.07	61.86	74.21
	02/23/90	136.07	61.34	74.73
S-1	12/22/89	133.21	57.60	75.61
	01/05/90	133.21	57.94	75.27
	01/22/90	133.21	57.93	75.28
	01/31/90	133.21	57.99	75.22
	02/23/90	133.21	57.28	75.93

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements Completed Between October 13, 1989 and February 23, 1990 at all Available Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
S-2	12/22/89	133.21	58.91	74.30
	01/05/90	133.21	59.27	73.94
	01/22/90	133.21	59.23	73.98
	01/31/90	133.21	59.10	74.11
	02/23/90	133.21	59.39	73.82
T-1	12/08/89	131.21	57.52	73.69
	12/22/89	131.21	57.57	73.64
	01/05/90	131.21	57.64	73.57
	01/22/90	131.21	57.63	73.58
	01/31/90	131.21	57.64	73.57
	02/23/90	131.21	57.32	73.89
T-2	12/08/89	131.37	57.86	73.51
	12/22/89	131.37	57.92	73.45
	01/05/90	131.37	57.95	73.42
	01/22/90	131.37	57.96	73.41
	01/31/90	131.37	57.92	73.45
	02/23/90	131.37	57.71	73.66
PM-1	12/08/89	132.87	59.32	73.55
	12/22/89	132.87	59.22	73.65
	01/05/90	132.87	59.23	73.64
	01/22/90	132.87	59.24	73.63
	01/31/90	132.87	59.21	73.66
PM-2	12/08/89	127.99	55.37	72.62
	12/22/89	127.99	55.24	72.75
	01/05/90	127.99	55.26	72.73

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
PM-2	01/22/90	127.99	55.29	72.70
(continued)	01/31/90	127.99	55.34	72.65
P-3	10/13/89	134.30	62.03	72.27
	10/27/89	134.30	61.67	72.63
	11/09/89	134.30	61.20	73.10
	11/22/89	134.30	60.83	73.47
	12/08/89	134.30	60.72	73.58
	12/22/89	134.30	60.91	73.39
	01/05/90	134.30	60.97	73.33
	01/23/90	134.30	61.02	73.28
	01/31/90	134.30	61.01	73.29
P-4	10/13/89	129.87	58.42	71.45
	10/27/89	129.87	57.03	72.84
	11/09/89	129.87	57.38	72.49
	11/22/89	129.87	57.02	72.85
	12/08/89	129.87	56.93	72.94
	12/22/89	129.87	57.02	72.85
	01/05/90	129.87	57.06	72.81
	01/23/90	129.87	57.08	72.79
	01/31/90	129.87	57.08	72.79
N10812	10/02/89	135.54	62.67	72.87
	10/13/89	135.54	62.47	73.07
	10/27/89	135.54	61.98	73.56
	11/09/89	135.54	61.50	74.04
	11/22/89	135.54	61.15	74.39
	12/08/89	135.54	61.00	74.54

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
N10812 (continued)	12/22/89	135.54	61.00	74.54
	01/05/90	135.54	61.06	74.48
	01/22/90	135.54	61.08	74.46
	01/31/90	135.54	61.07	74.47
	02/23/90	135.54	60.70	74.84
N10594	10/02/89	126.66	55.79	70.87
	10/13/89	126.66	55.64	71.02
	10/27/89	126.66	55.19	71.47
	11/09/89	126.66	54.57	72.09
	11/22/89	126.66	54.23	72.43
	12/08/89	126.66	54.10	72.56
	12/22/89	126.66	54.09	72.57
	01/05/90	126.66	54.16	72.50
	01/22/90	126.66	54.16	72.50
	01/31/90	126.66	54.28	72.38
	02/23/90	126.66	54.10	72.56
N10599	10/02/89	107.60	38.49	69.11
	10/13/89	107.60	38.89	68.71
	10/27/89	107.60	38.72	68.88
	11/09/89	107.60	38.48	69.12
	11/22/89	107.60	38.37	69.23
	12/08/89	107.60	38.93	68.67
	12/22/89	107.60	39.19	68.41
	01/05/90	107.60	39.49	68.11
	01/22/90	107.60	39.66	67.94
	01/31/90	107.60	39.52	68.08
	02/23/90	107.60	39.99	67.61

HKR 001 08/0

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
Plant Well 1	10/13/89	124.20	52.93	71.27
	10/27/89	124.20	52.93	71.27
	11/09/89	124.20	51.95	72.25
	11/22/89	124.20	--	--
	12/08/89	124.20	51.24	72.96
	12/22/89	124.20	51.20	73.00
	01/05/90	124.20	51.20	73.00
	01/22/90	124.20	--	--
	01/31/90	124.20	51.22	72.98
	02/23/90	124.20	51.07	73.13
N10630	10/13/89	110.66	41.07	69.59
	10/27/89	110.66	40.87	69.79
	11/09/89	110.66	40.38	70.28
	11/22/89	110.66	40.17	70.49
	12/08/89	110.66	40.36	70.30
	12/22/89	110.66	40.34	70.32
	01/05/90	--	--	--
	01/22/90	110.66	41.08	69.58
	01/31/90	--	--	--
	02/23/90	110.66	40.75	69.91
N10597	10/02/89	109.85	40.54	69.31
	10/13/89	109.85	40.47	69.38
	10/27/89	109.85	39.88	69.97
	11/09/89	109.85	39.47	70.38
	11/22/89	109.85	39.32	70.53
	12/08/89	109.85	39.52	70.33
	12/22/89	109.85	39.57	70.28

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Summary of Fluid-Level Measurements
Completed Between October 13, 1989 and
February 23, 1990 at all Available
Monitor Wells and Piezometers

	Date	Casing elevation (ft)	Depth to water (ft/toc)	Water elevation (ft)
N10597	01/05/90	109.85	39.60	70.25
(continued)	01/22/90	109.85	39.74	70.11
	01/31/90	109.85	39.48	70.37
	02/23/90	109.85	39.92	69.93
N10593	10/02/89	128.50	57.31	71.19
	10/13/89	128.50	57.12	71.38
	10/27/89	128.50	56.59	71.91
	11/09/89	128.50	56.06	72.44
	11/22/89	128.50	55.68	72.82
	12/08/89	128.50	55.47	73.03
	12/22/89	128.50	55.41	73.09
	01/05/90	128.50	55.46	73.04
	01/22/90	128.50	55.47	73.03
	01/31/90	128.50	55.52	72.98
	02/23/90	128.50	55.27	73.23
N10598	10/02/89	106.48	37.10	69.38
	10/13/89	106.48	37.27	69.21
	10/27/89	106.48	36.50	69.98
	11/09/89	106.48	36.32	70.16
	11/22/89	106.48	36.34	70.14
	12/08/89	106.48	36.83	70.10
	12/22/89	106.48	36.96	69.52
	01/05/90	106.48	36.98	69.50
	01/22/90	106.48	37.16	69.32
	01/31/90	106.48	36.52	69.96
	02/23/90	106.48	37.50	68.98

-- Denotes fluid-level measurement was not collected.

APPENDIX 7

Air Monitoring Data

APPENDIX

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Air Monitoring Data
Times, Flow Rates and Sample Volumes
for Hicksville RI/FS

	Dust			
	September 25, 1989		October 23, 1989	
Upwind				
start/stop time (hh:mm)	09:24	17:08	08:07	16:20
decimal time	0.391666	0.713888	0.338194	0.680555
total time (hh:mm)	07:24		08:13	
flow rate	1.7	L/min.	1.7	L/min.
sample volume	788.80	L	838.10	L
Downwind 1				
start/stop time (hh:mm)	09:47	17:11	08:24	16:35
decimal time	0.407638	0.715972	0.35	0.690972
total time (hh:mm)	07:24		08:11	
flow rate	1.7	L/min.	1.7	L/min.
sample volume	754.80	L	834.70	L
Downwind 2				
start/stop time (hh:mm)	09:47	17:11	08:36	16:45
decimal time	0.407638	0.715972	0.358333	0.697916
total time (hh:mm)	07:24		08:09	
flow rate	1.7	L/min.	1.7	L/min.
sample volume	754.80	L	831.30	L
Downwind 3				
start/stop time (hh:mm)	09:54	17:15	08:36	16:45
decimal time	0.4125	0.71875	0.358333	0.697916
total time (hh:mm)	07:21		08:09	
flow rate	1.7	L/min.	1.7	L/min.
sample volume	749.70	L	831.30	L

HKR 001 08/5

APPENDIX

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Air Monitoring Data
Times, Flow Rates and Sample Volumes
for Hicksville RI/FS

	Solvents	
	September 25, 1989	October 23, 1989
Upwind		
start/stop time (hh:mm)	09:24 17:08	08:07 16:20
decimal time	0.391666 0.713888	0.338194 0.680555
total time (hh:mm)	07:44	08:13
flow rate	0.05 L/min.	0.05 L/min.
sample volume	23.20	24.65 L
Downwind 1		
start/stop time (hh:mm)	09:47 17:11	08:24 16:35
decimal time	0.407638 0.715972	0.35 0.690972
total time (hh:mm)	07:24	08:11
flow rate	0.05 L/min.	0.05 L/min.
sample volume	22.20 L	24.55 L
Downwind 2		
start/stop time (hh:mm)	09:47 17:11	08:36 16:45
decimal time	0.407638 0.715972	0.358333 0.697916
total time (hh:mm)	07:24	08:09
flow rate	0.05 L/min.	0.05 L/min.
sample volume	22.20 L	24.45 L
Downwind 3		
start/stop time (hh:mm)	09:54 17:15	08:36 16:45
decimal time	0.4125 0.71875	0.358333 0.697916
total time (hh:mm)	07:21	08:09
flow rate	0.05 L/min.	0.05 L/min.
sample volume	22.05 L	24.45 L

APPENDIX

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Air Monitoring Data
Times, Flow Rates and Sample Volumes
for Hicksville RI/FS

	Aroclor 1248	
	September 25, 1989	October 23, 1989
Upwind		
start/stop time (hh:mm)	09:24 17:08	08:07 16:20
decimal time	0.391666 0.713888	0.338194 0.680555
total time (hh:mm)	07:44	08:13
flow rate	1.7 L/min.	1.7 L/min.
sample volume	788.80 L	838.10 L
Downwind 1		
start/stop time (hh:mm)	09:47 17:11	08:24 16:35
decimal time	0.407638 0.715972	0.35 0.690972
total time (hh:mm)	07:24	08:11
flow rate	1.7 L/min.	1.7 L/min.
sample volume	754.80 L	834.70 L
Downwind 2		
start/stop time (hh:mm)	09:47 17:11	08:36 16:45
decimal time	0.407638 0.715972	0.358333 0.697916
total time (hh:mm)	07:24	08:09
flow rate	1.7 L/min.	1.7 L/min.
sample volume	754.80 L	0.00 L
Downwind 3		
start/stop time (hh:mm)	09:54 17:15	08:36 16:45
decimal time	0.4125 0.71875	0.358333 0.697916
total time (hh:mm)	07:21	08:09
flow rate	1.7 L/min.	1.7 L/min.
sample volume	749.70 L	831.30 L

APPENDIX 8

Soil-Vapor Chromatograms

SCENTOGRAPH TRACE PRINOUT

TRACE #46 DATE: Thu Sep 28 12:13:44 1989

CHANNEL: 1 NAME: SG-3

COLUMN: 3%SP-1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 40 INHIBIT TIME: 50 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

TOTAL AREA: 0

NAME: SG-3

UPPER TRACE #46 0.00% Sep 28,89 12:13

LOWER TRACE #34 100.00%

COLUMN: 3%SP-1000
COLUMN PRESSURE: 26
DETECTOR: AID
TEMPERATURE: 40-60 , 0 Secs
SAMPLE TIME: 10
GAIN: 1.000
DURATION: 15 Minutes

HKR 001 0880

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #49 DATE: Thu Sep 28 12:41:59 1989

CHANNEL: 1 NAME: SG-5

COLUMN: 3%SP-1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 40 INHIBIT TIME: 50 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

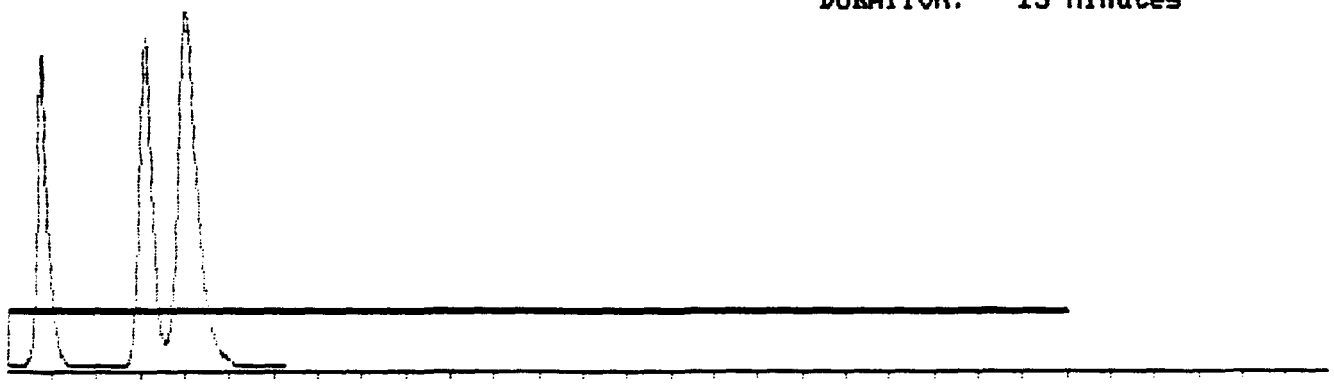
TOTAL AREA: 0

NAME: SG-5

UPPER TRACE #49 0.00% Sep 28,89 12:41

LOWER TRACE #34 100.00%

COLUMN: 3%SP-1000
COLUMN PRESSURE: 26
DETECTOR: AID
TEMPERATURE: 40-60 , 0 Secs
SAMPLE TIME:10
GAIN: 1.000
DURATION: 15 Minutes



HKR 001 0881

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #51 DATE: Thu Sep 28 13:13:31 1989

CHANNEL: 1 NAME: SG-7

COLUMN: 3%SP-1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 40 INHIBIT TIME: 50 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

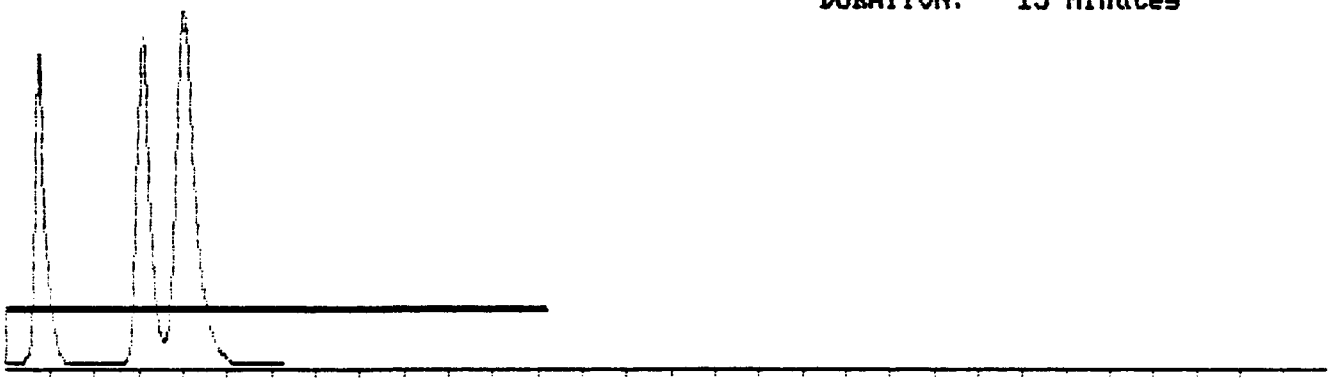
TOTAL AREA: 0

NAME: SG-7

UPPER TRACE #51 0.00% Sep 28,89 13:13

LOWER TRACE #34 100.00%

COLUMN: 3%SP-1000
COLUMN PRESSURE: 26
DETECTOR: AID
TEMPERATURE: 40-60 , 0 Secs
SAMPLE TIME: 10
GAIN: 1.000
DURATION: 15 Minutes



HKR 001 0882

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #41 DATE: Thu Sep 28 11:02:32 1989

CHANNEL: 1 NAME: PURGE

COLUMN: 3%SP-1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 40 INHIBIT TIME: 50 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

TOTAL AREA: 0

NAME: PURGE

UPPER TRACE #41 0.00% Sep 28,89 11:02

LOWER TRACE #34 100.00%

COLUMN: 3%SP-1000

COLUMN PRESSURE: 26

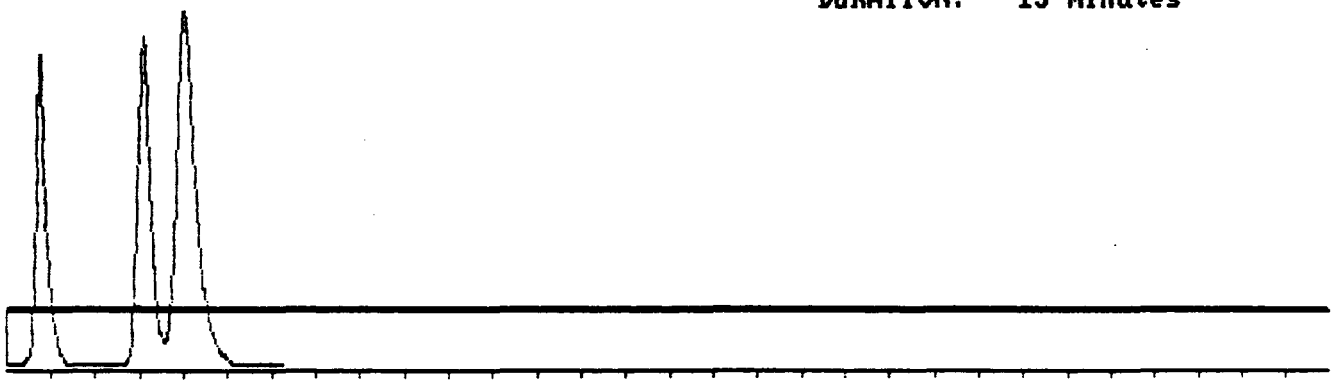
DETECTOR: AID

TEMPERATURE: 40-60 , 0 Secs

SAMPLE TIME: 10

GAIN: 1.000

DURATION: 15 Minutes



HKR 001 0883

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #42 DATE: Thu Sep 28 11:23:18 1989

CHANNEL: 1 NAME: SG-1

COLUMN: 3%SP-1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 40 INHIBIT TIME: 50 Seconds

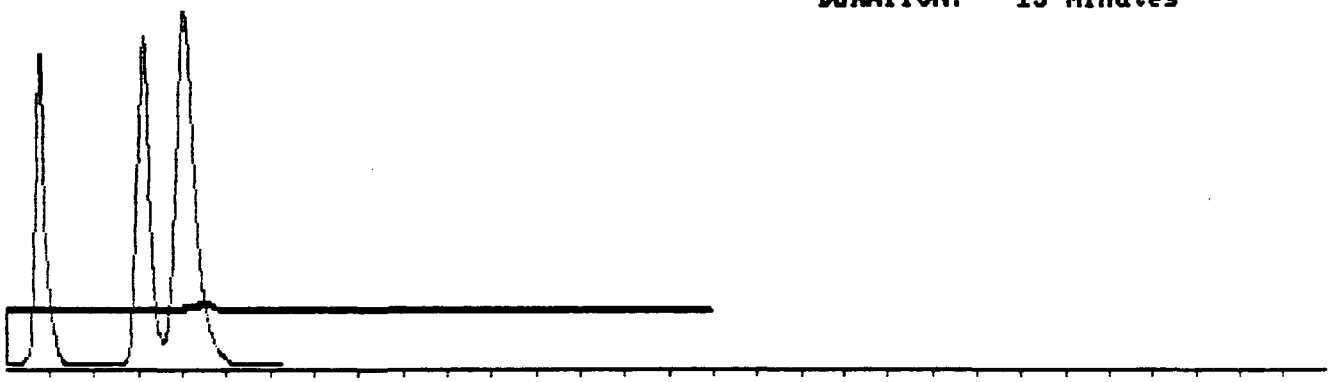
PEAK#	NAME	RT	AREA	CONCENTRATION
1	UNKNOWN	186	77334	41.237 PPB
	TOTAL AREA:		77334	

NAME: SG-1

UPPER TRACE #42 0.93% Sep 28,89 11:23

LOWER TRACE #34 100.00%

COLUMN: 3%SP-1000
COLUMN PRESSURE: 26
DETECTOR: AID
TEMPERATURE: 40-60 , 0 Secs
SAMPLE TIME:10
GAIN: 1.000
DURATION: 15 Minutes



HKR 001 0884

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #44 DATE: Thu Sep 28 12:00:26 1989

CHANNEL: 1 NAME: SG-2

COLUMN: 3%SP-1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 40 INHIBIT TIME: 50 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

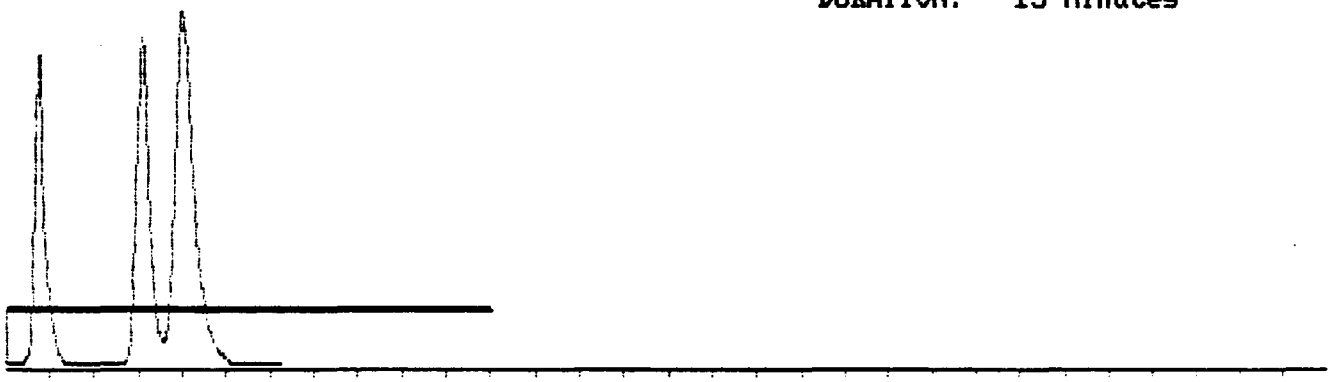
TOTAL AREA: 0

NAME: SG-2

UPPER TRACE #44 0.00% Sep 28,89 12:00

LOWER TRACE #34 100.00%

COLUMN: 3%SP-1000
COLUMN PRESSURE: 26
DETECTOR: AID
TEMPERATURE: 40-60 , 0 Secs
SAMPLE TIME:10
GAIN: 1.000
DURATION: 15 Minutes



HKR 001 0885

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #47 DATE: Thu Sep 28 12:27:45 1989

CHANNEL: 1 NAME: SG-4

COLUMN: 3%SP-1000 DETECTOR: AID

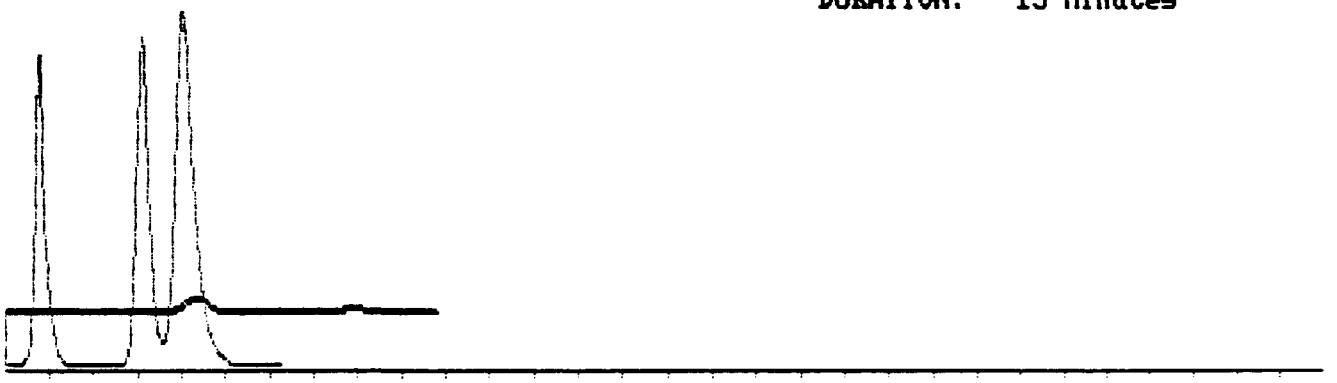
COLUMN PRESSURE: 26

TEMPERATURE: 40 INHIBIT TIME: 50 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION
1	UNKNOWN	183	176286	94.002 PPB
2	UNKNOWN	291	38346	20.447 PPB
	TOTAL AREA:		214632	

NAME: SG-4
UPPER TRACE #47 2.57% Sep 28,89 12:27
LOWER TRACE #34 100.00%

COLUMN: 3%SP-1000
COLUMN PRESSURE: 26
DETECTOR: AID
TEMPERATURE: 40-60 , 0 Secs
SAMPLE TIME:10
GAIN: 1.000
DURATION: 15 Minutes



HKR 001 0886

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #50 DATE: Thu Sep 28 13:00:11 1989

CHANNEL: 1 NAME: SG-6

COLUMN: 3%SP-1000 DETECTOR: AID

COLUMN PRESSURE: 26

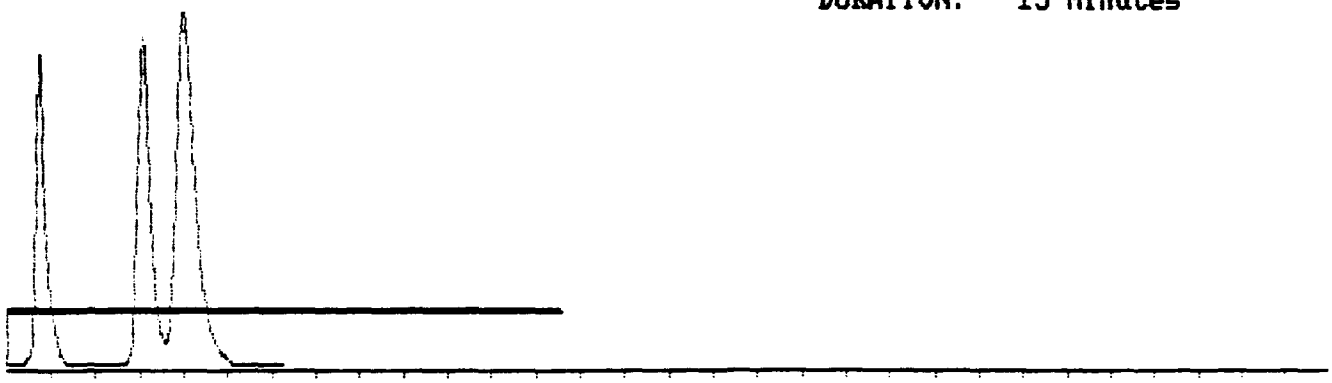
TEMPERATURE: 40 INHIBIT TIME: 50 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

TOTAL AREA: 0

NAME: SG-6
UPPER TRACE #50 0.00% Sep 28,89 13:00
LOWER TRACE #34 100.00%

COLUMN: 3%SP-1000
COLUMN PRESSURE: 26
DETECTOR: AID
TEMPERATURE: 30-60 , 0 Secs
SAMPLE TIME: 10
GAIN: 1.000
DURATION: 15 Minutes



HKR 001 0887

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #52 DATE: Thu Sep 28 13:27:30 1989

CHANNEL: 1 NAME: SG-8

COLUMN: 3%SP-1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 40 INHIBIT TIME: 50 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

TOTAL AREA: 0

NAME: SG-8

UPPER TRACE #52 0.00% Sep 28,89 13:27

LOWER TRACE #34 100.00%

COLUMN: 3%SP-1000
COLUMN PRESSURE: 26
DETECTOR: AID
TEMPERATURE: 40-60 , 0 Secs
SAMPLE TIME: 10
GAIN: 1.000
DURATION: 15 Minutes

HKR 001 0888

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #59 DATE: Thu Sep 28 15:11:27 1989

CHANNEL: 1 NAME: SPIKE

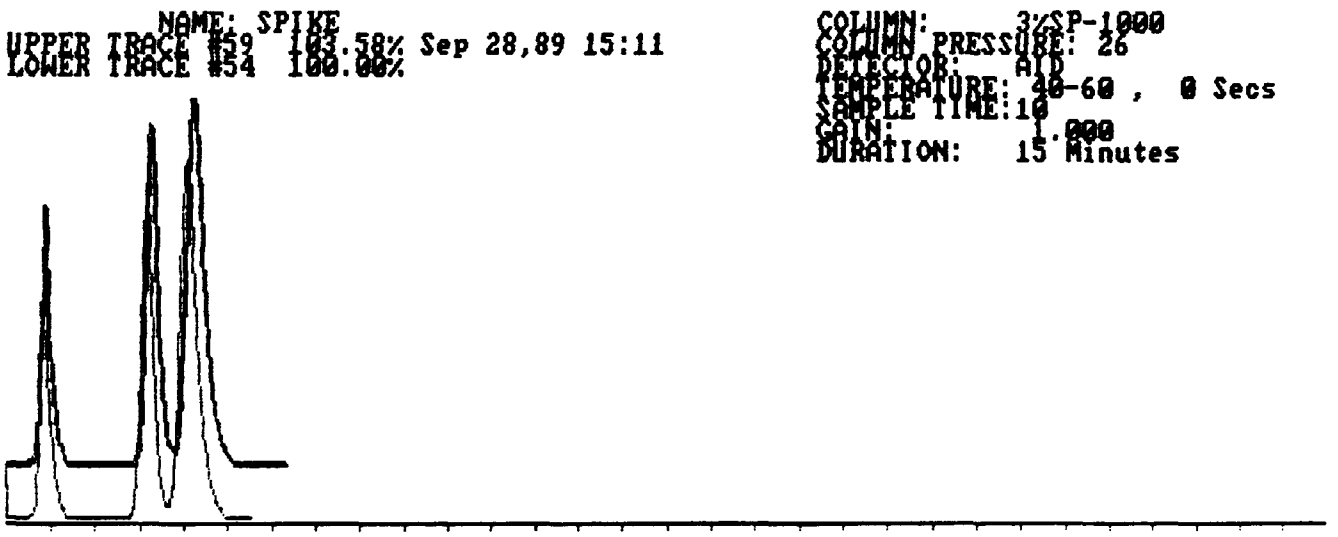
COLUMN: 3%SP-1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 40 INHIBIT TIME: 50 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION
1	T-12DCE	76	1357877	926.046 PPB
2	TCE	148	2537118	1018.761 PPB
3	PCE	176	3964109	966.697 PPB

TOTAL AREA: 7859104



HKR 001 0889

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #60 DATE: Thu Sep 28 15:15:50 1989

CHANNEL: 1 NAME: PURGE

COLUMN: 3%SP-1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 40 INHIBIT TIME: 50 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

TOTAL AREA: 0

NAME: PURGE

UPPER TRACE #60 0.00% Sep 28,89 15:15

LOWER TRACE #54 100.00%

COLUMN: 3%SP-1000

COLUMN PRESSURE: 26

DETECTOR: AID

TEMPERATURE: 40-60 , 0 Secs

SAMPLE TIME: 10

GAIN: 1.000

DURATION: 15 Minutes

HKR 001 0890

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #64 DATE: Thu Sep 28 15:58:30 1989

CHANNEL: 1 NAME: SG-13

COLUMN: 3%SP-1000 DETECTOR: AID

COLUMN PRESSURE: 26

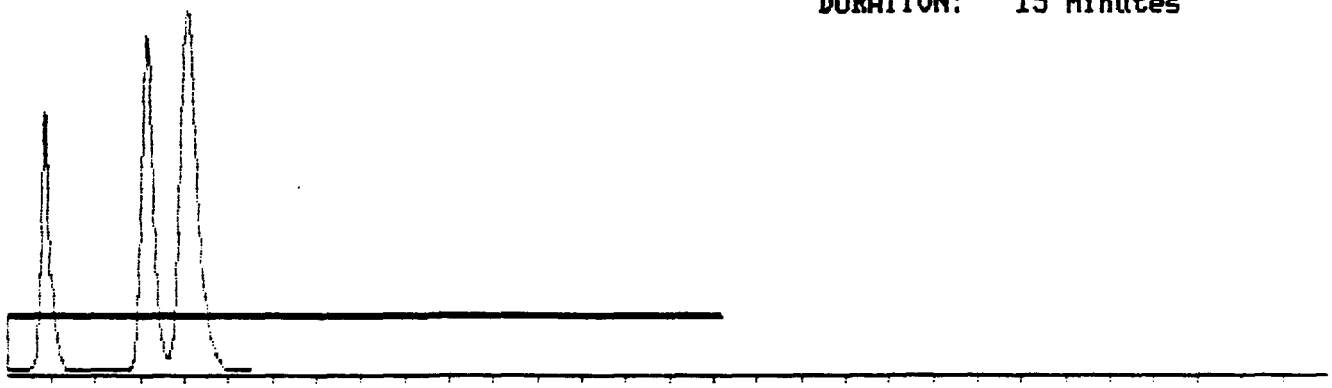
TEMPERATURE: 40 INHIBIT TIME: 50 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

TOTAL AREA: 0

NAME: SG-13
UPPER TRACE #64 0.00% Sep 28,89 15:58
LOWER TRACE #54 100.00%

COLUMN: 3%SP-1000
COLUMN PRESSURE: 26
DETECTOR: AID
TEMPERATURE: 30-60 , 0 Secs
SAMPLE TIME: 10
GAIN: 1.000
DURATION: 15 Minutes



HKR 001 0891

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #67 DATE: Thu Sep 28 16:28:52 1989

CHANNEL: 1 NAME: SG-15

COLUMN: 3%SP-1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 40 INHIBIT TIME: 50 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

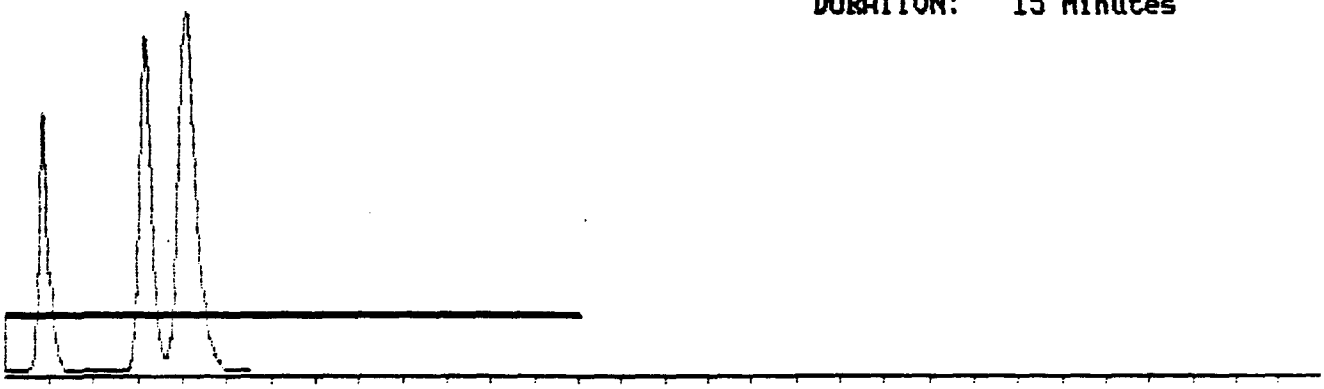
TOTAL AREA: 0

NAME: SG-15

UPPER TRACE #67 0.00% Sep 28,89 16:28

LOWER TRACE #54 100.00%

COLUMN: 3%SP-1000
COLUMN PRESSURE: 26
DETECTOR: AID
TEMPERATURE: 30-60 , 0 Secs
SAMPLE TIME:10
GAIN: 1.000
DURATION: 15 Minutes



HKR 001 0892

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #75 DATE: Thu Sep 28 18:13:46 1989

CHANNEL: 1 NAME: SG-20

COLUMN: 3%SP-1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 40 INHIBIT TIME: 50 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

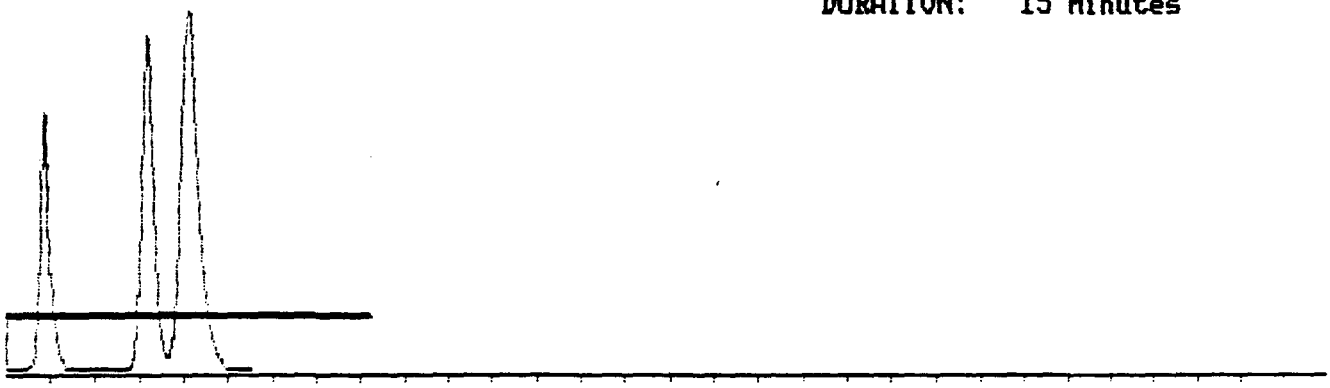
TOTAL AREA: 0

NAME: SG-20

UPPER TRACE #75 0.00% Sep 28,89 18:13

LOWER TRACE #54 100.00%

COLUMN: 3%SP-1000
COLUMN PRESSURE: 26
DETECTOR: AID
TEMPERATURE: 40-60 , 0 Secs
SAMPLE TIME: 10
GAIN: 1.000
DURATION: 15 Minutes



HKR 001 0893

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #76 DATE: Thu Sep 28 18:23:00 1989

CHANNEL: 1 NAME: SG-20(Dup)

COLUMN: 3%SP-1000 DETECTOR: AID

COLUMN PRESSURE: 26

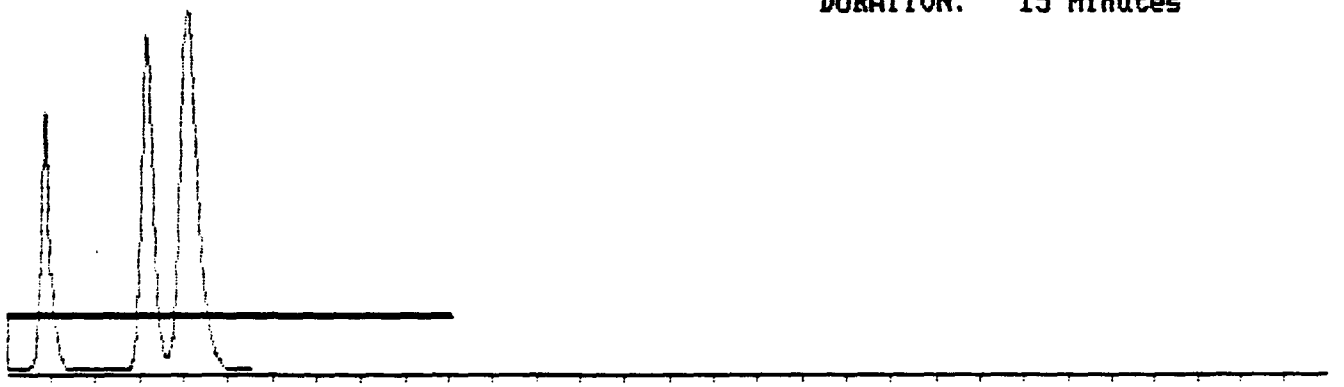
TEMPERATURE: 40 INHIBIT TIME: 50 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

TOTAL AREA: 0

NAME: SG-20(Dup)
UPPER TRACE #76 0.00% Sep 28,89 18:23
LOWER TRACE #54 100.00%

COLUMN: 3%SP-1000
COLUMN PRESSURE: 26
DETECTOR: AID
TEMPERATURE: 40-60 , 0 Secs
SAMPLE TIME:10
GAIN: 1.000
DURATION: 15 Minutes



HKR 001 0894

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #12 DATE: Mon Nov 27 15:41:32 1989

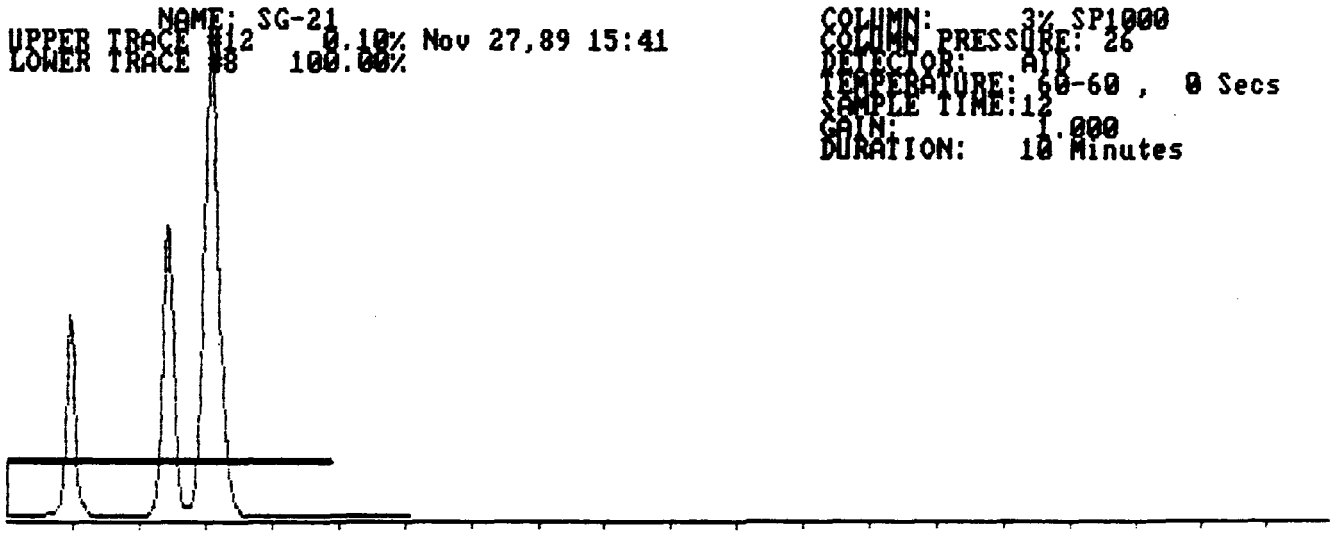
CHANNEL: 1 NAME: SG-21

COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION
1	PCE	132	4631	1.531 PPB
	TOTAL AREA:		4631	



HKR 001 0895

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #13 DATE: Mon Nov 27 15:45:02 1989

CHANNEL: 1 NAME: SG-21(DUP)

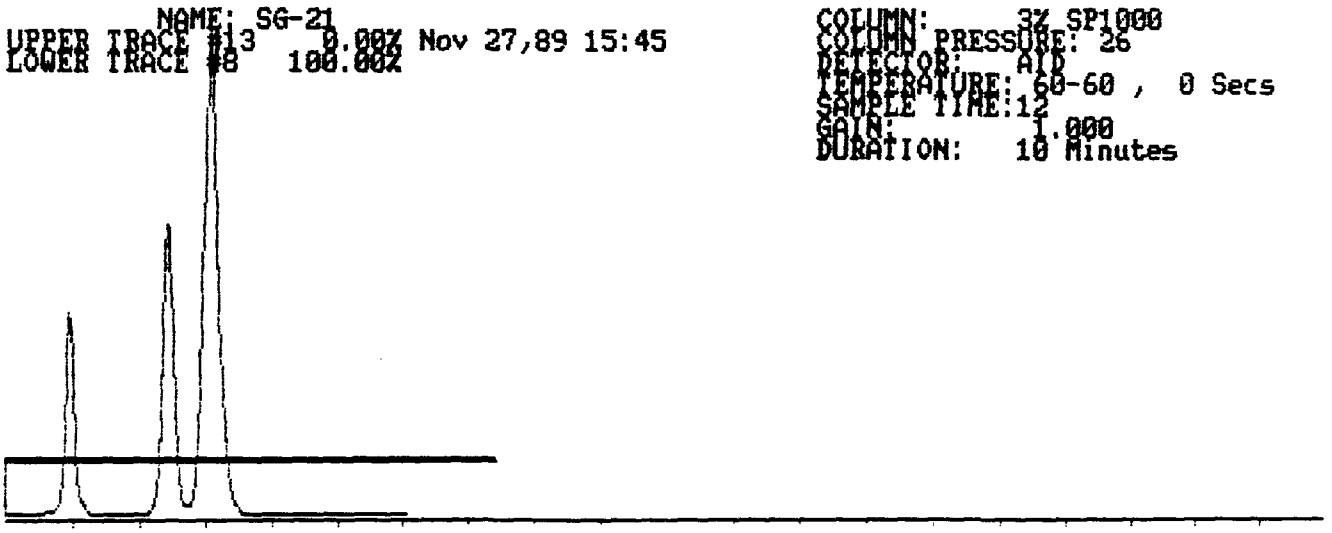
COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

TOTAL AREA: 0



HKR 001 0896

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #14 DATE: Mon Nov 27 15:52:50 1989

CHANNEL: 1 NAME: SG-22

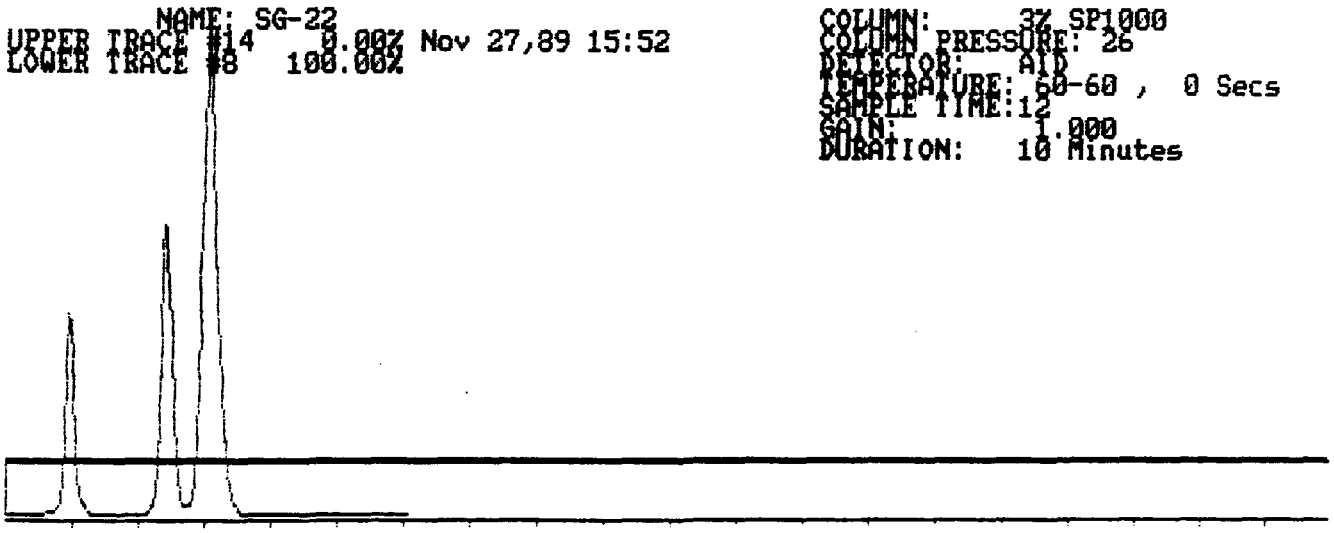
COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

TOTAL AREA: 0



HKR 001 0897

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #15 DATE: Mon Nov 27 16:40:02 1989

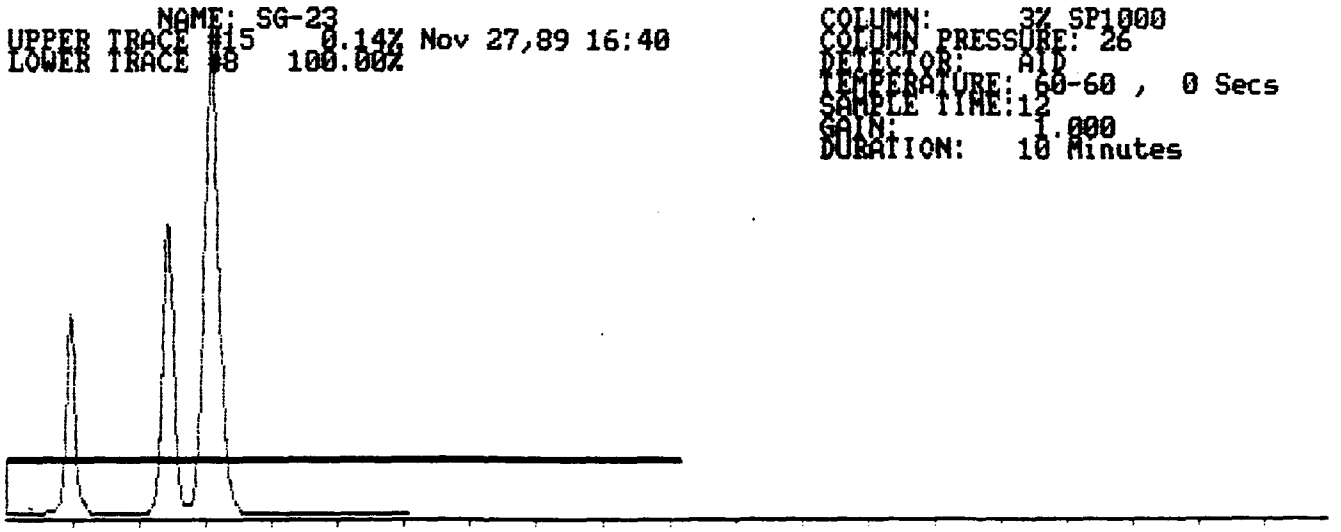
CHANNEL: 1 NAME: SG-23

COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION
1	PCE	134	6531	2.158 PPB
	TOTAL AREA:		6531	



HKR 001 0898

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #17 DATE: Mon Nov 27 16:54:38 1989

CHANNEL: 1 NAME: SG-24

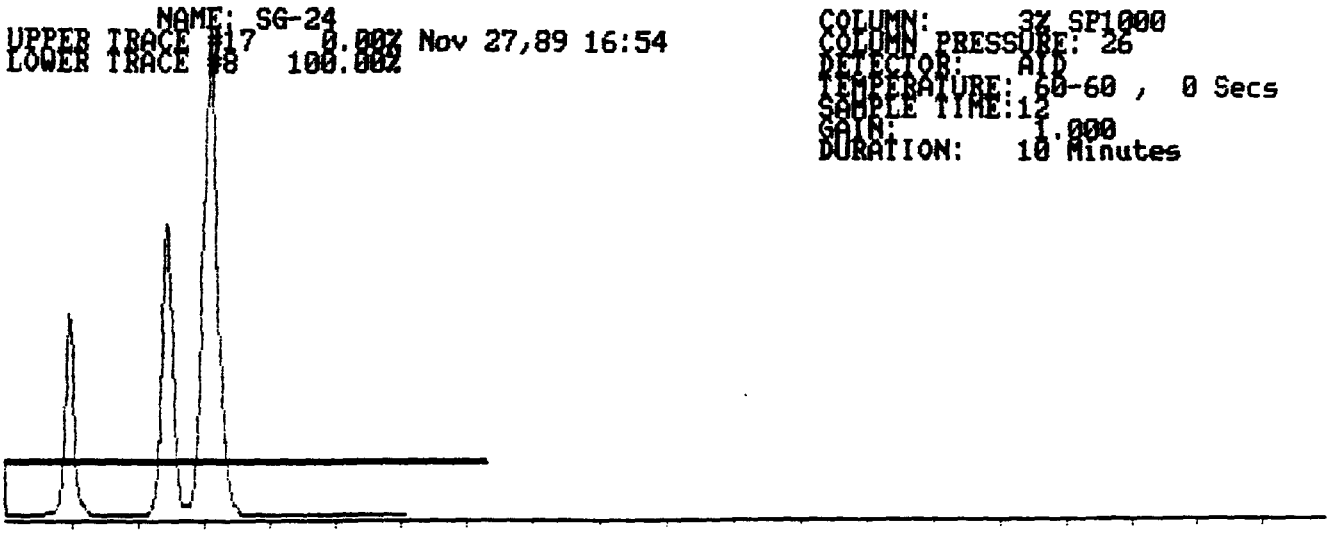
COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

TOTAL AREA: 0



HKR 001 0899

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #18 DATE: Mon Nov 27 17:04:20 1989

CHANNEL: 1 NAME: SG-25

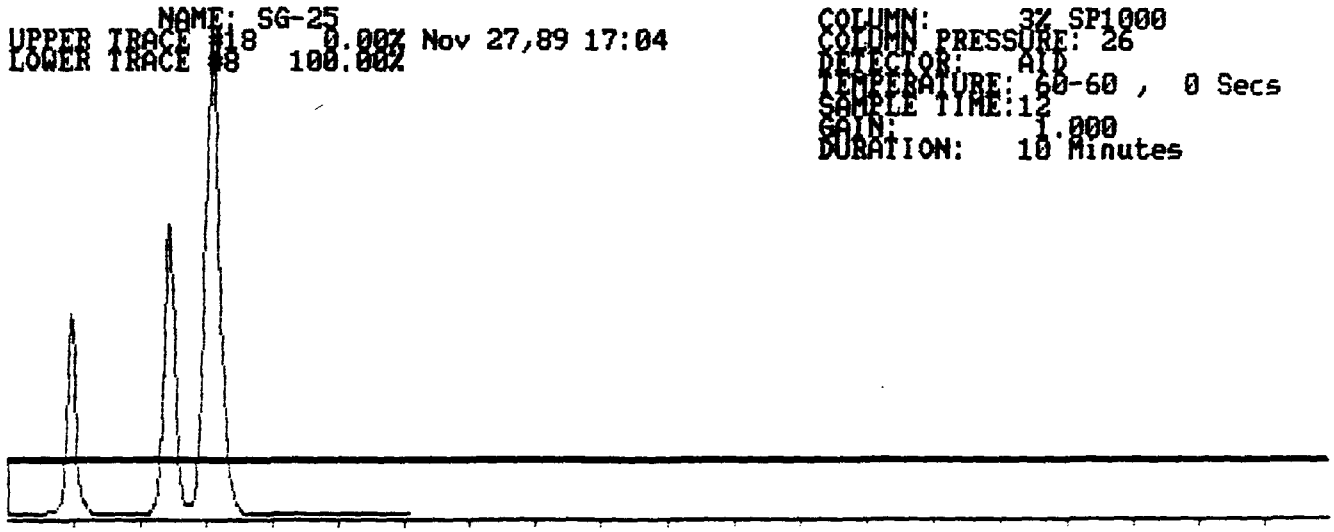
COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

TOTAL AREA: 0



HKR 001 0900

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #29 DATE: Wed Nov 29 12:49:52 1989

CHANNEL: 1 NAME: SPIKE

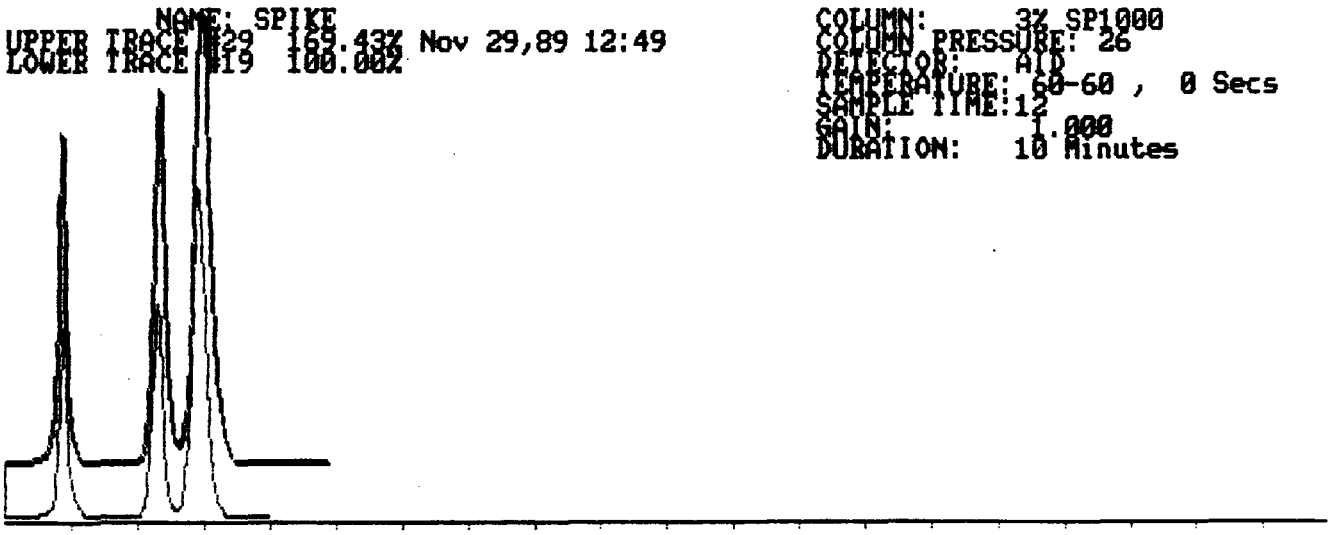
COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION
1	T-12DCE	66	1077934	1469.428 PPB
2	TCE	110	1782822	1907.736 PPB
3	PCE	129	3053907	1489.377 PPB

TOTAL AREA: 5914663



HKR 001 0901

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #35 DATE: Wed Nov 29 13:34:12 1989

CHANNEL: 1 NAME: SG-32

COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

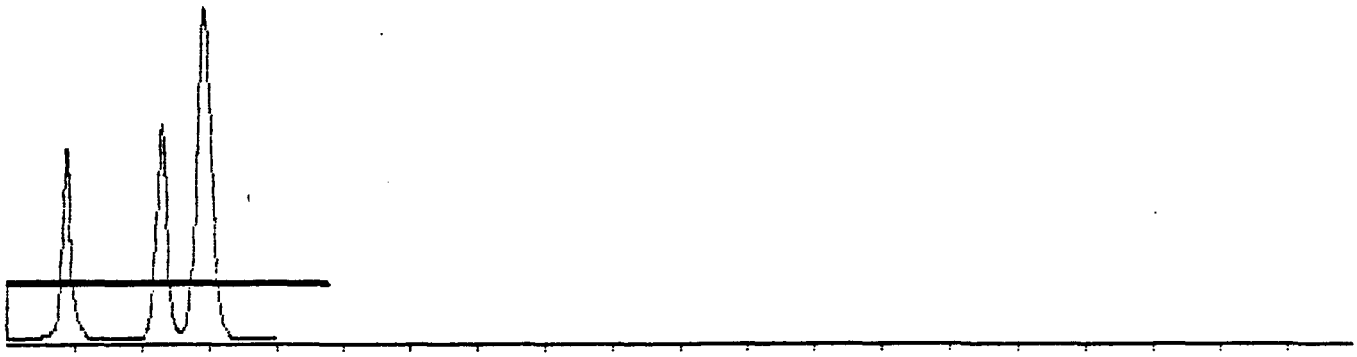
TOTAL AREA: 0

NAME: SG-32

UPPER TRACE #35 0.00% Nov 29,89 13:34

LOWER TRACE #19 100.00%

COLUMN: 3% SP1000
COLUMN PRESSURE: 26
DETECTOR: AID
TEMPERATURE: 60-60 , 0 Secs
SAMPLE TIME:12
SCAN: 1.000
DURATION: 10 Minutes



HKR 001 0902

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #39 DATE: Wed Nov 29 15:08:51 1989

CHANNEL: 1 NAME: SG-36

COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

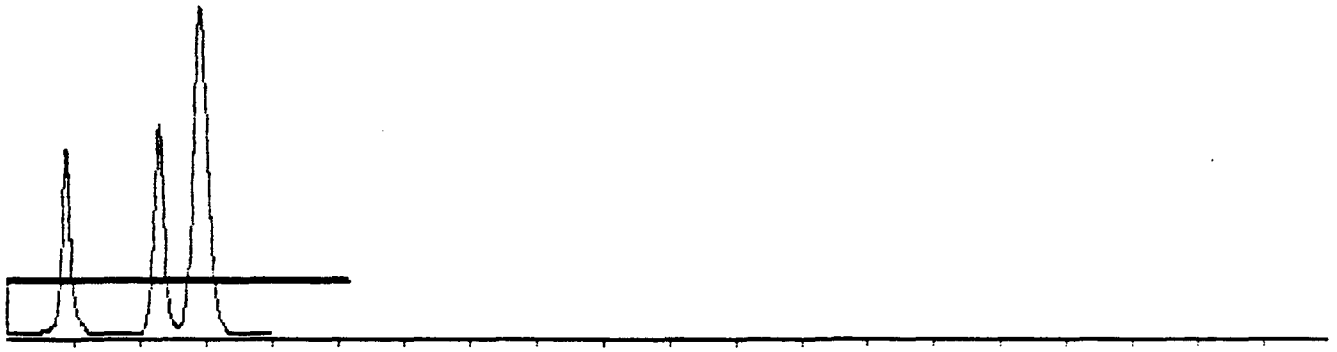
PEAK#	NAME	RT	AREA	CONCENTRATION
1	PCE	131	2241	1.093 PPB
	TOTAL AREA:		2241	

NAME: SG-36

UPPER TRACE #39 0.06% Nov 29,89 15:08

LOWER TRACE #19 100.00%

COLUMN: 3% SP1000
COLUMN PRESSURE: 26
DETECTOR: AID
TEMPERATURE: 60-60 , 0 Secs
SAMPLE TIME: 12
GAIN: 1.000
DURATION: 10 Minutes



HKR 001 0903

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #62 DATE: Thu Nov 30 15:21:46 1989

CHANNEL: 1 NAME: SG-43

COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

TOTAL AREA: 0

NAME: SG-43

UPPER TRACE #62 0.00% Nov 30,89 15:21

LOWER TRACE #51 100.00%

COLUMN: 3% SP1000

COLUMN PRESSURE: 26

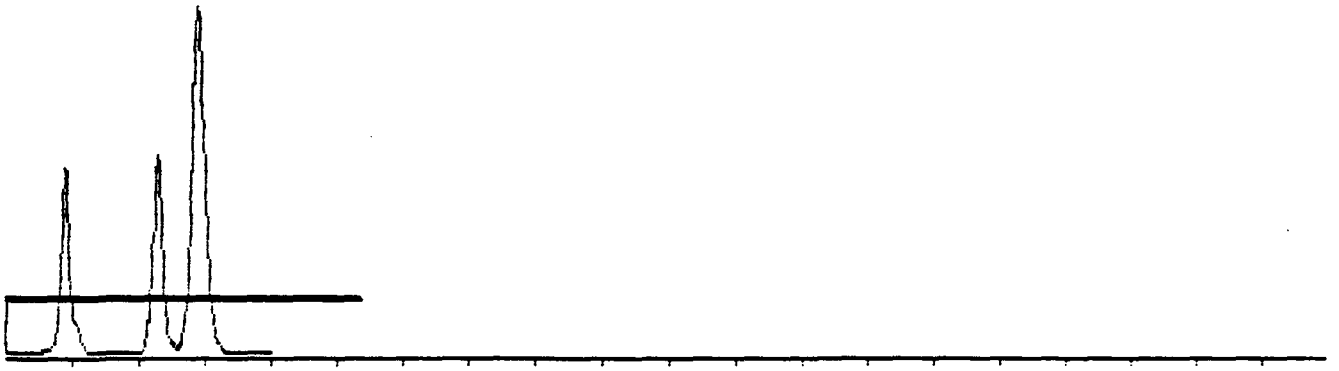
DETECTOR: AID

TEMPERATURE: 60-60 , 0 Secs

SAMPLE TIME:12

GAIN: 1.000

DURATION: 10 Minutes



HKR 001 0904

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #82 DATE: Fri Dec 01 11:53:18 1989

CHANNEL: 1 NAME: PURGE

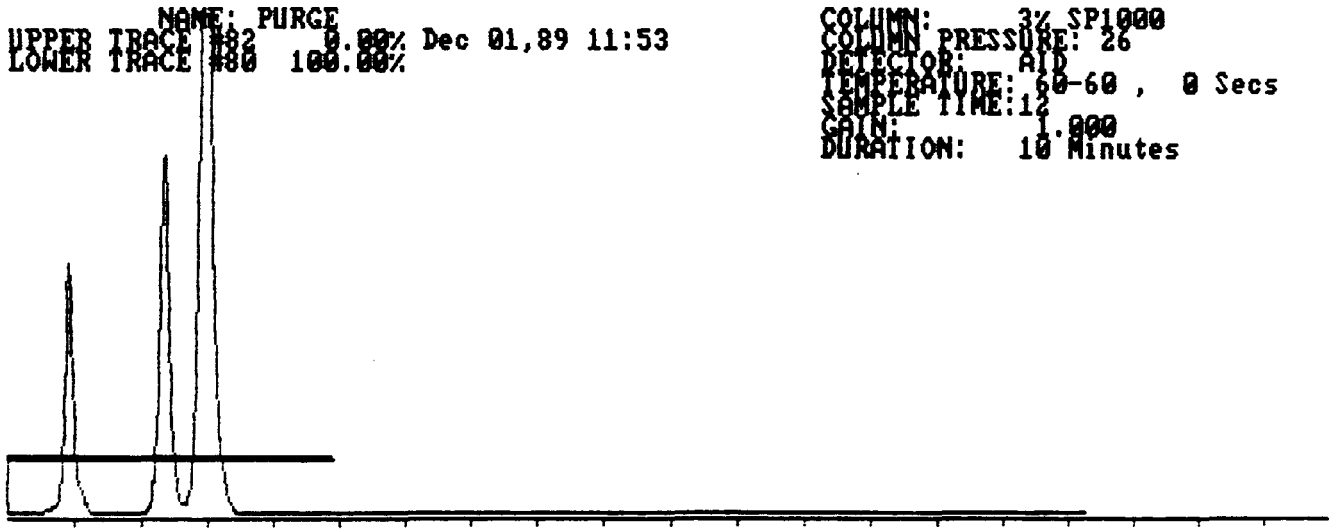
COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 60· INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

TOTAL AREA: 0



HKR 001 0905

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #83 DATE: Fri Dec 01 12:12:06 1989

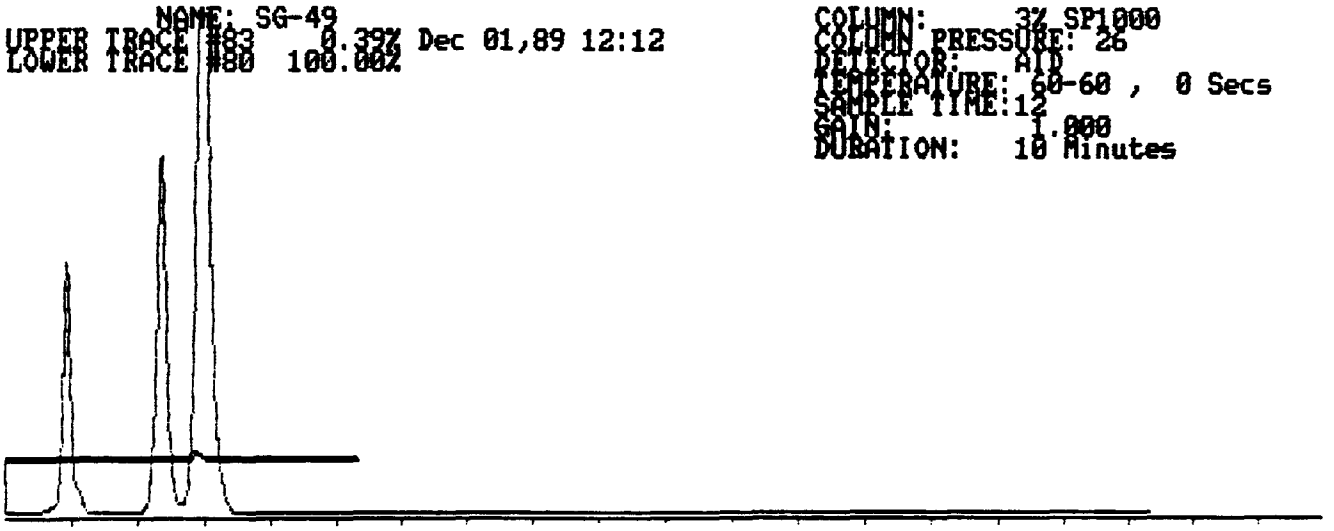
CHANNEL: 1 NAME: SG-49

COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION
1	PCE	126	22505	6.081 PPB
	TOTAL AREA:		22505	



HKR 001 0906

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #88 DATE: Fri Dec 01 12:53:18 1989

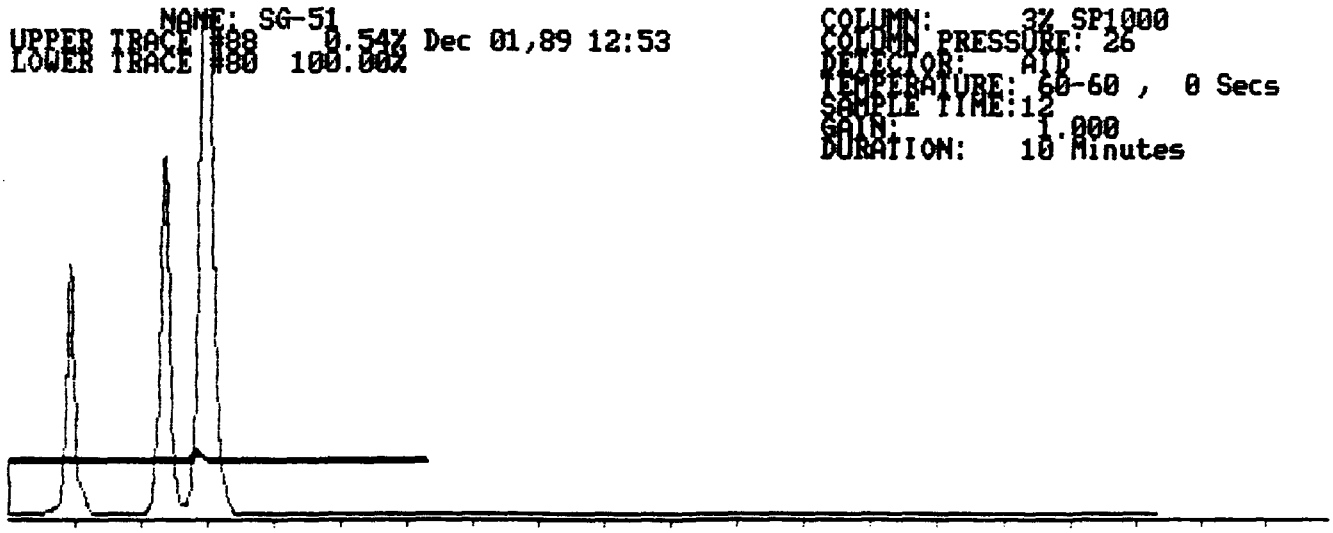
CHANNEL: 1 NAME: SG-51

COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION
1	PCE	126	30852	8.336 PPB
	TOTAL AREA:		30852	



HKR 001 0907

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #100 DATE: Mon Dec 04 11:43:56 1989

CHANNEL: 1 NAME: SG-54

COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

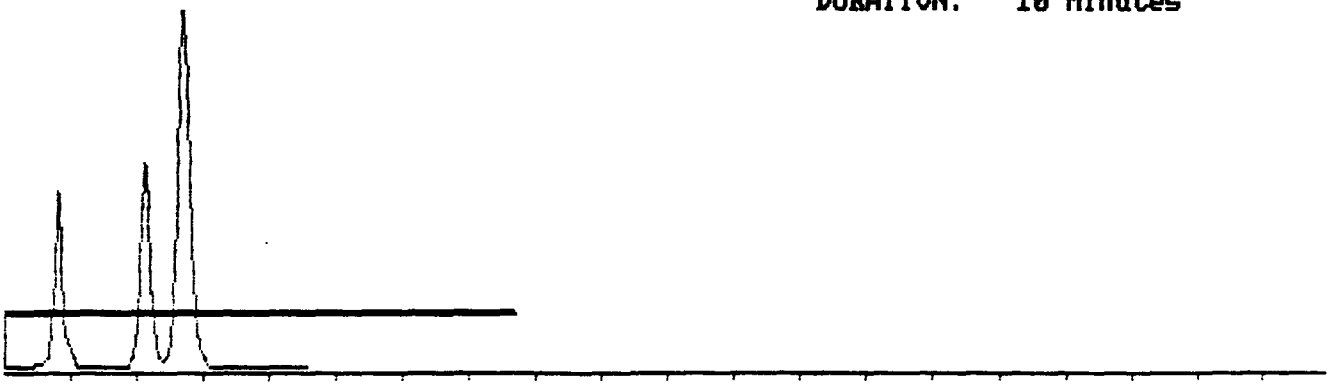
TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

TOTAL AREA: 0

NAME: SG-54
UPPER TRACE #100 0.00% Dec 04,89 11:43
LOWER TRACE #94 100.00%

COLUMN: 3% SP1000
COLUMN PRESSURE: 26
DETECTOR: AID
TEMPERATURE: 60-60 , 0 Secs
SAMPLE TIME: 12
GAIN: 1.000
DURATION: 10 Minutes



HKR 001 0908

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #102 DATE: Mon Dec 04 12:07:39 1989

CHANNEL: 1 NAME: SG-56

COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

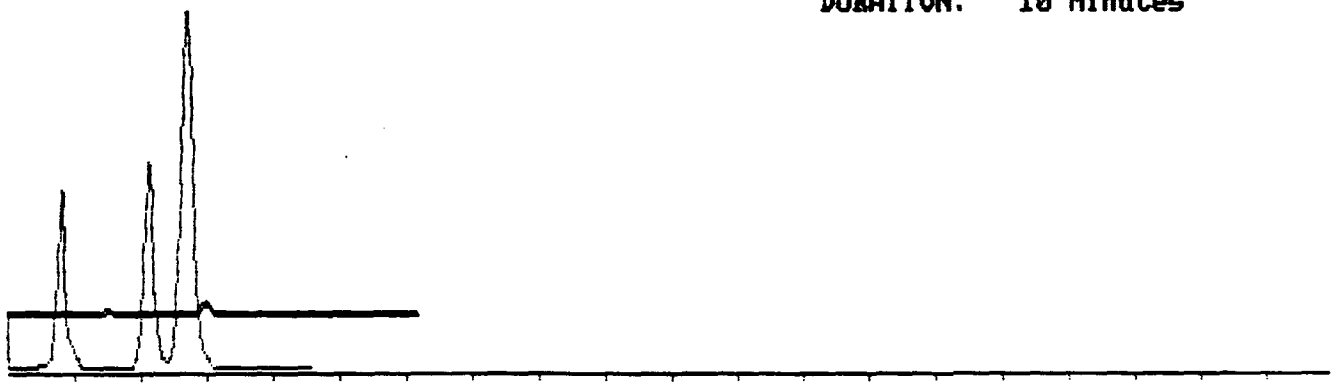
PEAK#	NAME	RT	AREA	CONCENTRATION
1	UNKNOWN	86	6342	9.713 PPB
2	UNKNOWN	131	33589	51.441 PPB
	TOTAL AREA:		39931	

NAME: SG-56

UPPER TRACE #102 1.22% Dec 04,89 12:07

LOWER TRACE #94 100.00%

COLUMN: 3% SP1000
COLUMN PRESSURE: 26
DETECTOR: AID
TEMPERATURE: 60-60 , 0 Secs
SAMPLE TIME:12
GAIN: 1.000
DURATION: 10 Minutes



HKR 001 0909

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #107 DATE: Mon Dec 04 13:49:49 1989

CHANNEL: 1 NAME: SG-58

COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

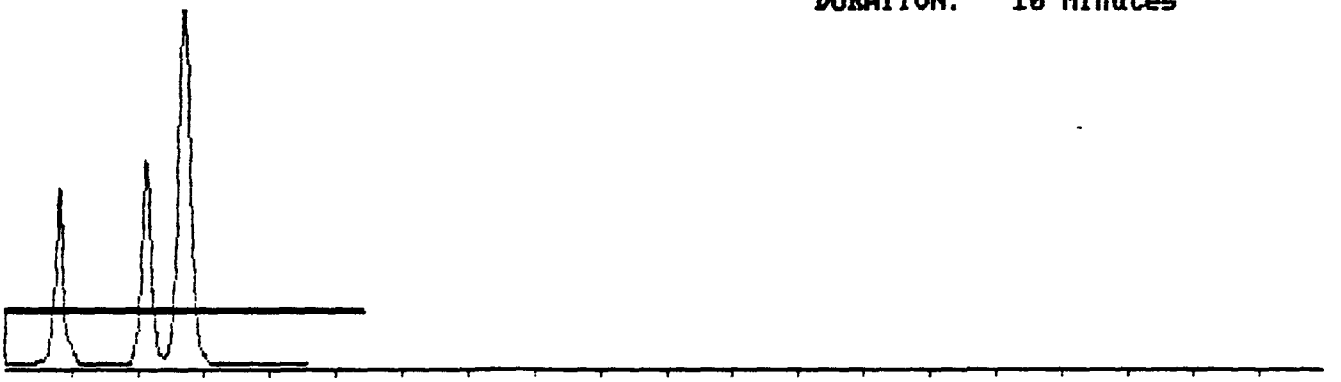
TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

TOTAL AREA: 0

NAME: SG-58
UPPER TRACE #107 0.00% Dec 04,89 13:49
LOWER TRACE #94 100.00%

COLUMN: 3% SP1000
COLUMN PRESSURE: 26
DETECTOR: AID
TEMPERATURE: 60-60 , 0 Secs
SAMPLE TIME: 12
GAIN: 1.000
DURATION: 10 Minutes



HKR 001 0910

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #108 DATE: Mon Dec 04 14:06:01 1989

CHANNEL: 1 NAME: SG-58(DUP)

COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

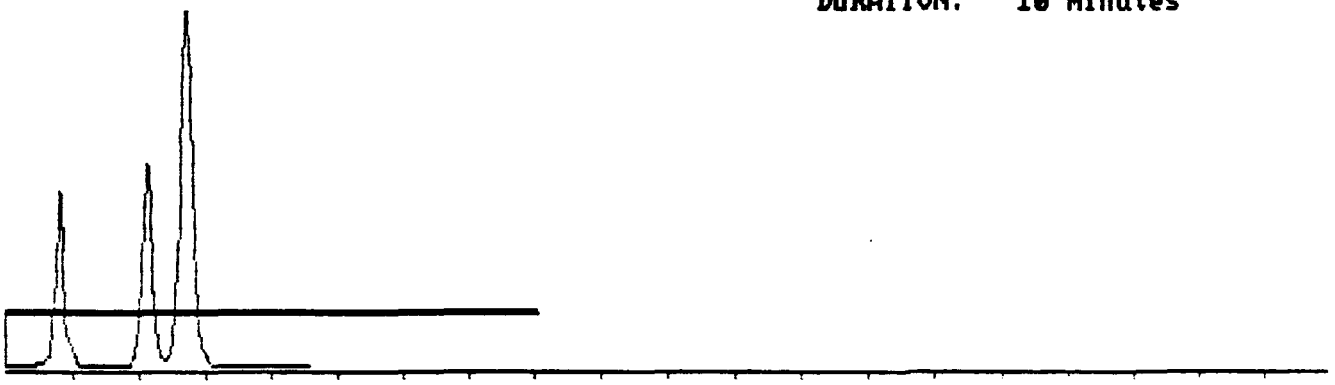
TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

TOTAL AREA: 0

NAME: SG-58
UPPER TRACE #108 0.00% Dec 04,89 14:06
LOWER TRACE #94 100.00%

COLUMN: 3% SP1000
COLUMN PRESSURE: 26
DETECTOR: AID
TEMPERATURE: 60-60 , 0 Secs
SAMPLE TIME: 12
GAIN: 1.000
DURATION: 10 Minutes



HKR 001 0911

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #109 DATE: Mon Dec 04 14:21:14 1989

CHANNEL: 1 NAME: SG-60

COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

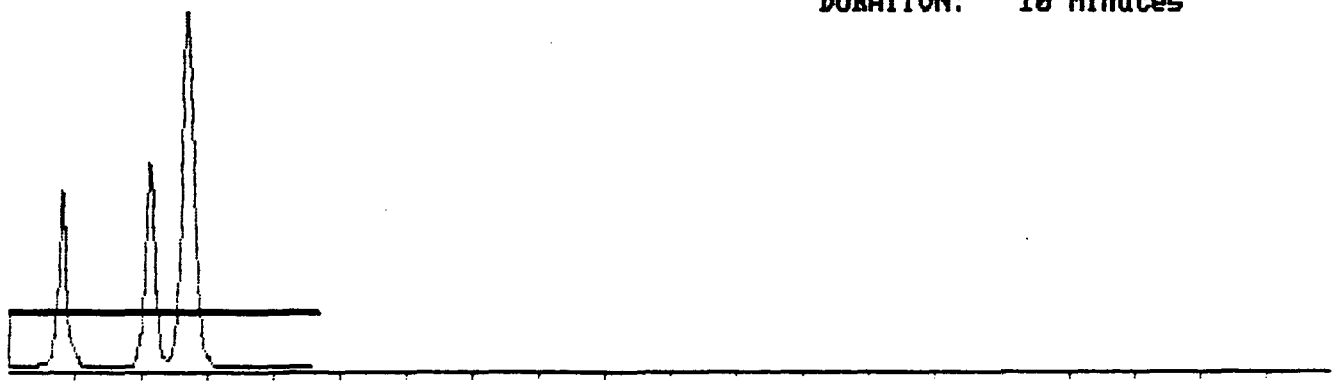
TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

TOTAL AREA: 0

NAME: SG-60
UPPER TRACE #109 0.00% Dec 04,89 14:21
LOWER TRACE #94 100.00%

COLUMN: 3% SP1000
COLUMN PRESSURE: 26
DETECTOR: AID
TEMPERATURE: 60-60 , 0 Secs
ATTN: 12
SAMPLE TIME: 1
GAIN: 1.000
DURATION: 10 Minutes



HKR 001 0912

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #110 DATE: Mon Dec 04 14:57:24 1989

CHANNEL: 1 NAME: SG-61

COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

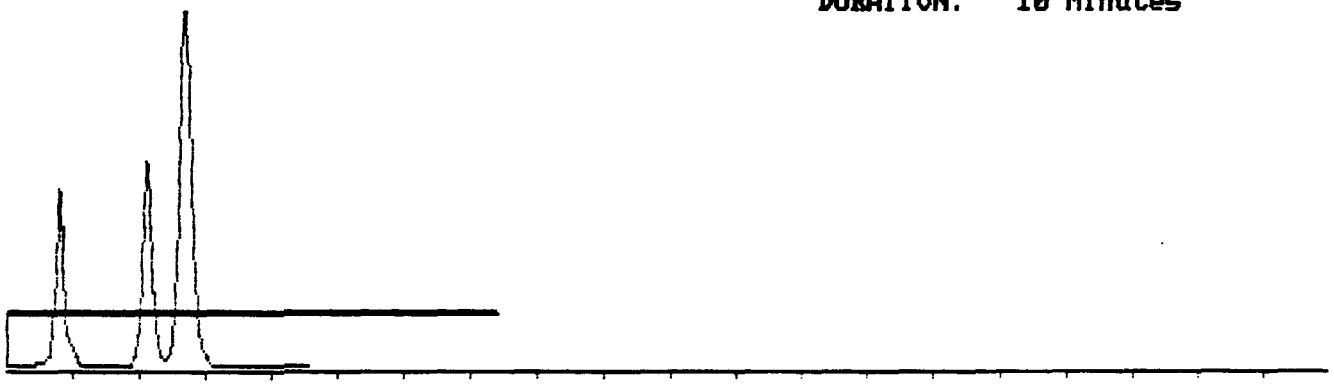
TOTAL AREA: 0

NAME: SG-61

UPPER TRACE #110 0.00% Dec 04,89 14:57

LOWER TRACE #94 100.00%

COLUMN: 3% SP1000
COLUMN PRESSURE: 26
DETECTOR: AID
TEMPERATURE: 60-60 , 0 Secs
SAMPLE TIME:12
SCAN: 1.000
DURATION: 10 Minutes



HKR 001 0913

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #117 DATE: Mon Dec 04 15:26:02 1989

CHANNEL: 1 NAME: SG-63

COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

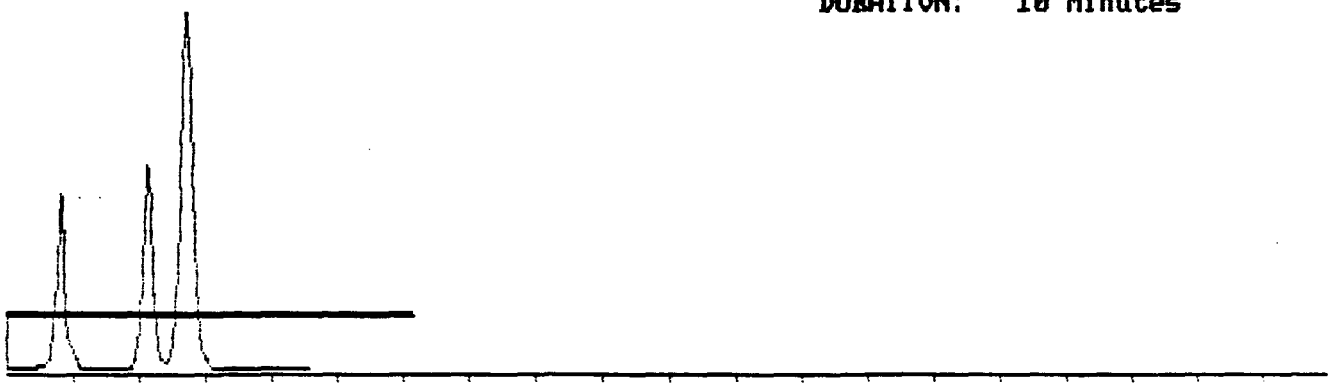
TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

TOTAL AREA: 0

NAME: SG-63
UPPER TRACE #117 0.00% Dec 04,89 15:26
LOWER TRACE #94 100.00%

COLUMN: 3% SP1000
COLUMN PRESSURE: 26
DETECTOR: AID
TEMPERATURE: 60-60 , 0 Secs
SAMPLE TIME:12
GAIN: 1.000
DURATION: 10 Minutes



HKR 001 0914

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #119 DATE: Mon Dec 04 15:47:00 1989

CHANNEL: 1 NAME: SG-65

COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

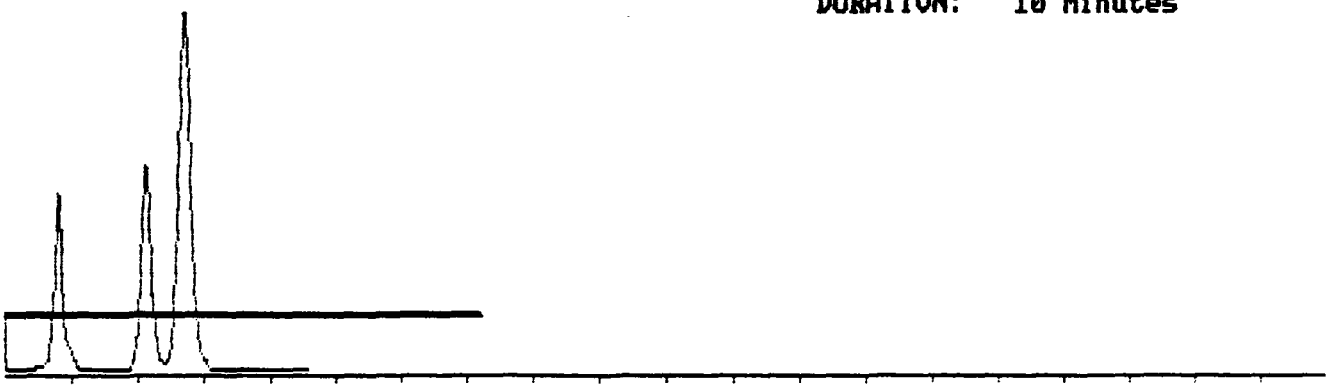
TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

TOTAL AREA: 0

NAME: SG-65
UPPER TRACE #119 0.00% Dec 04,89 15:47
LOWER TRACE #94 100.00%

COLUMN: 3% SP1000
COLUMN PRESSURE: 26
DETECTOR: AID
TEMPERATURE: 60-60 , 0 Secs
SAMPLE TIME:12
GAIN: 1.000
DURATION: 10 Minutes



HKR 001 0915

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #120 DATE: Mon Dec 04 16:13:26 1989

CHANNEL: 1 NAME: SG-68

COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

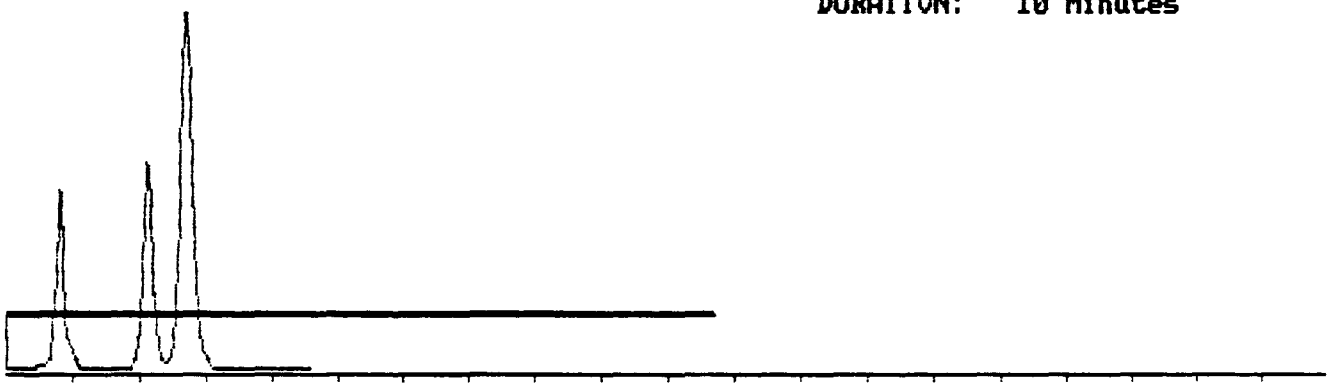
TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

TOTAL AREA: 0

NAME: SG-68
UPPER TRACE #120 0.00% Dec 04,89 16:13
LOWER TRACE #94 100.00%

COLUMN: 3% SP1000
COLUMN PRESSURE: 26
DETECTOR: AID
TEMPERATURE: 60-60 , 0 Secs
SAMPLE TIME: 12
GAIN: 1.000
DURATION: 10 Minutes



HKR 001 0916

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #131 DATE: Tue Dec 05 10:24:33 1989

CHANNEL: 1 NAME: PURGE

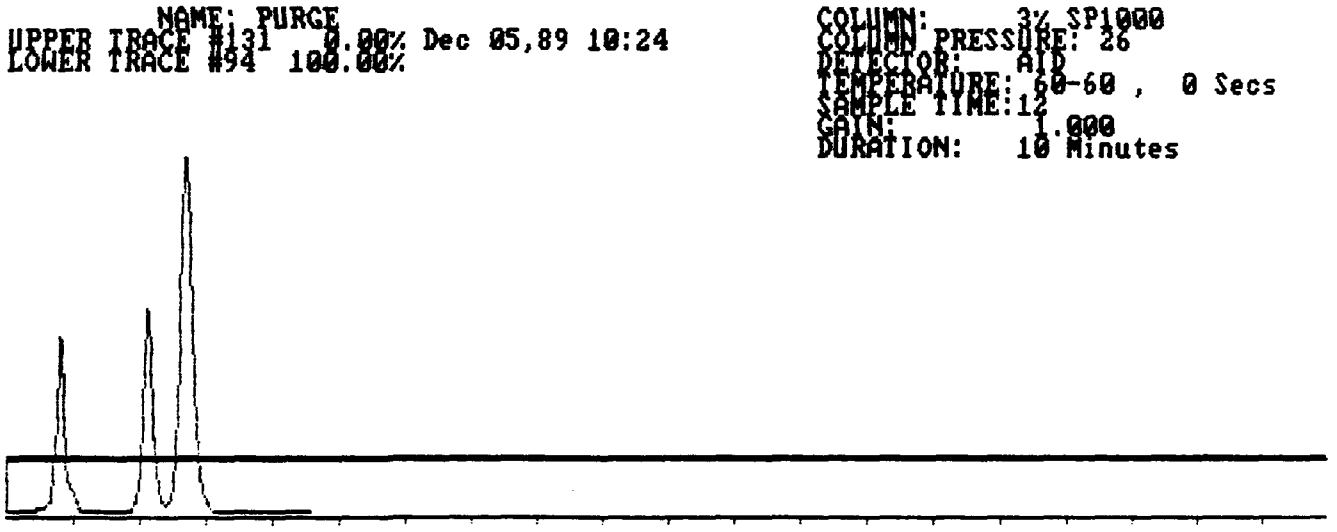
COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION

TOTAL AREA: 0



HKR 001 0917

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #132 DATE: Tue Dec 05 10:45:28 1989

CHANNEL: 1 NAME: SG-70

COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION
1	UNKNOWN	128	2367	1.337 PPB
	TOTAL AREA:		2367	

NAME: SG-70

UPPER TRACE #132 0.07% Dec 05,89 10:45

LOWER TRACE #94 100.00%

COLUMN: 3% SP1000

COLUMN PRESSURE: 26

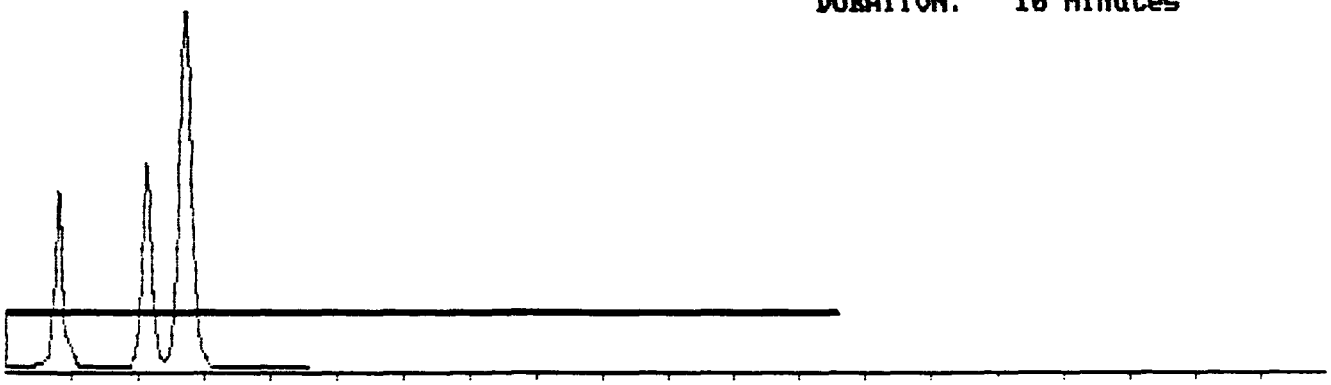
DETECTOR: AID

TEMPERATURE: 60-60 , 0 Secs

SAMPLE TIME:12

GAIN: 1.000

DURATION: 10 Minutes



HKR 001 0918

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #134 DATE: Tue Dec 05 11:44:24 1989

CHANNEL: 1 NAME: SG-74

COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION
1	PCE	126	8835	2.042 PPB
2	UNKNOWN	138	4762	103.282 PPB
	TOTAL AREA:		13597	

NAME: SG-74

UPPER TRACE #134 0.42% Dec 05,89 11:44

LOWER TRACE #94 100.00%

COLUMN: 3% SP1000

COLUMN PRESSURE: 26

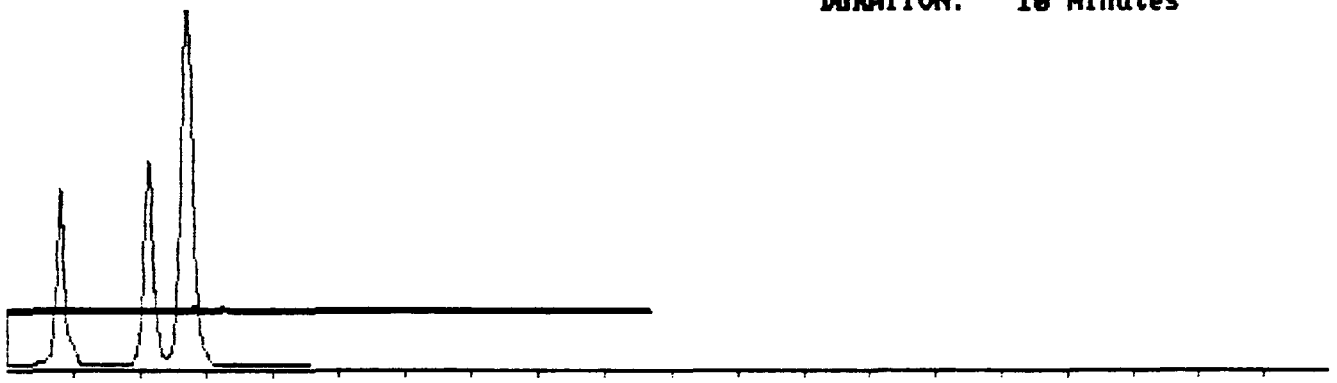
DETECTOR: AID

TEMPERATURE: 60-60 , 0 Secs

SAMPLE TIME: 12

GAIN: 1.000

DURATION: 10 Minutes



HKR 001 0919

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #135 DATE: Tue Dec 05 12:21:17 1989

CHANNEL: 1 NAME: SPIKE

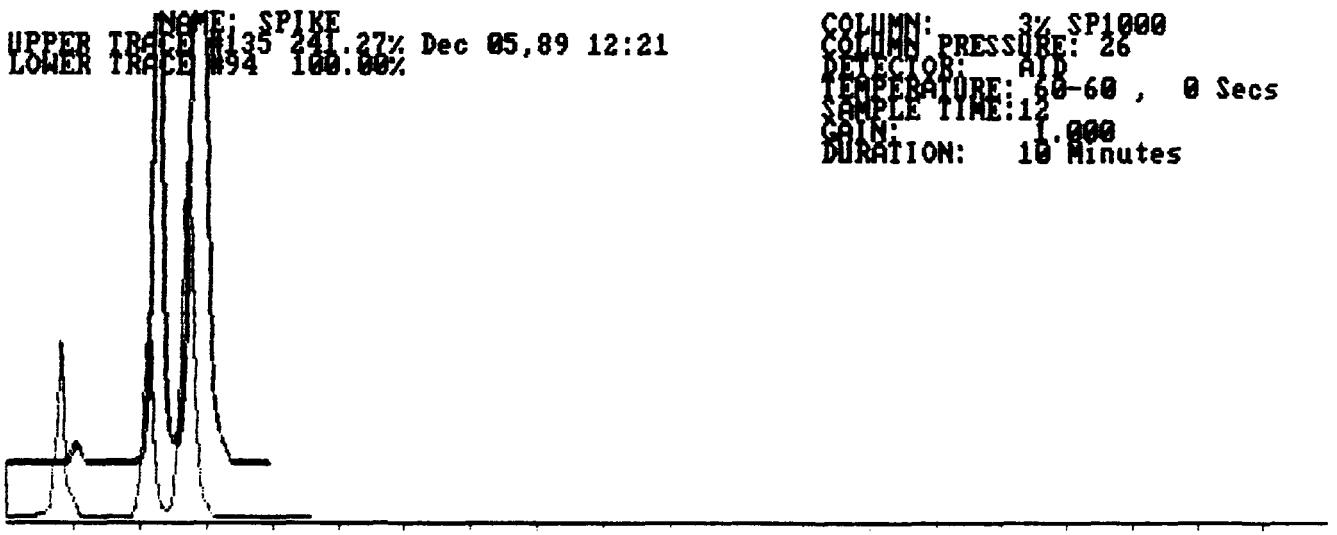
COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION
1	111-TCEA	72	54753	1187.525 PPB
2	TCE	107	2269815	1256.815 PPB
3	PCE	125	5560088	1285.090 PPB

TOTAL AREA: 7884656



HKR 001 0920

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #140 DATE: Tue Dec 05 13:36:59 1989

CHANNEL: 1 NAME: SG-76

COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

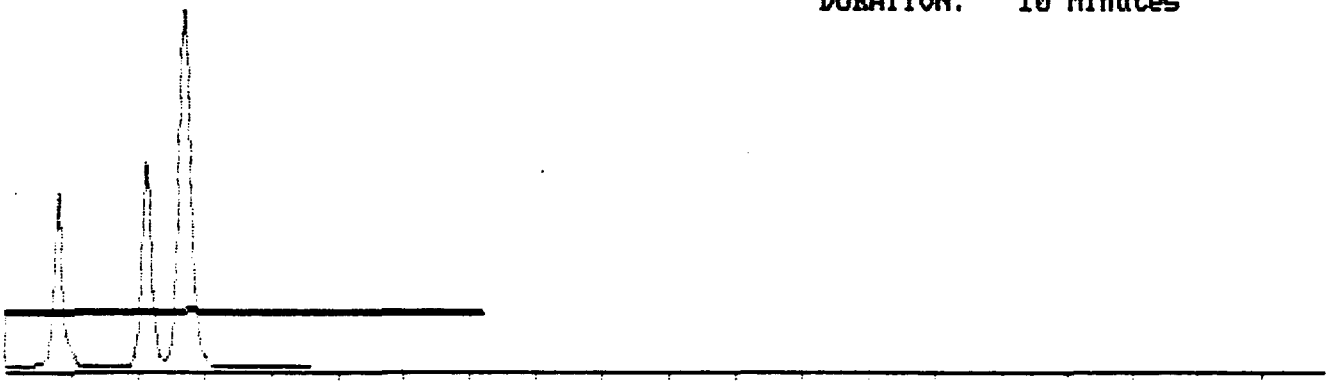
PEAK#	NAME	RT	AREA	CONCENTRATION
1	PCE	125	13918	7.163 PPB
	TOTAL AREA:		13918	

NAME: SG-76

UPPER TRACE #140 0.43% Dec 05,89 13:36

LOWER TRACE #94 100.00%

COLUMN: 3% SP1000
COLUMN PRESSURE: 26
DETECTOR: AID
TEMPERATURE: 60-60 , 0 Secs
SAMPLE TIME:12
GAIN: 1.000
DURATION: 10 Minutes



HKR 001 0921

LEGGETTE, BRASHEARS & GRAHAM, INC.

SCENTOGRAPH TRACE PRINOUT

TRACE #142 DATE: Tue Dec 05 14:09:25 1989

CHANNEL: 1 NAME: SG-78

COLUMN: 3% SP1000 DETECTOR: AID

COLUMN PRESSURE: 26

TEMPERATURE: 60 INHIBIT TIME: 40 Seconds

PEAK#	NAME	RT	AREA	CONCENTRATION
1	TCE	107	5975	3.308 PPB
2	PCE	125	15197	3.512 PPB
	TOTAL AREA:		21172	

NAME: SG-78

UPPER TRACE #142 0.65% Dec 05,89 14:09

LOWER TRACE #94 100.00%

COLUMN: 3% SP1000

COLUMN PRESSURE: 26

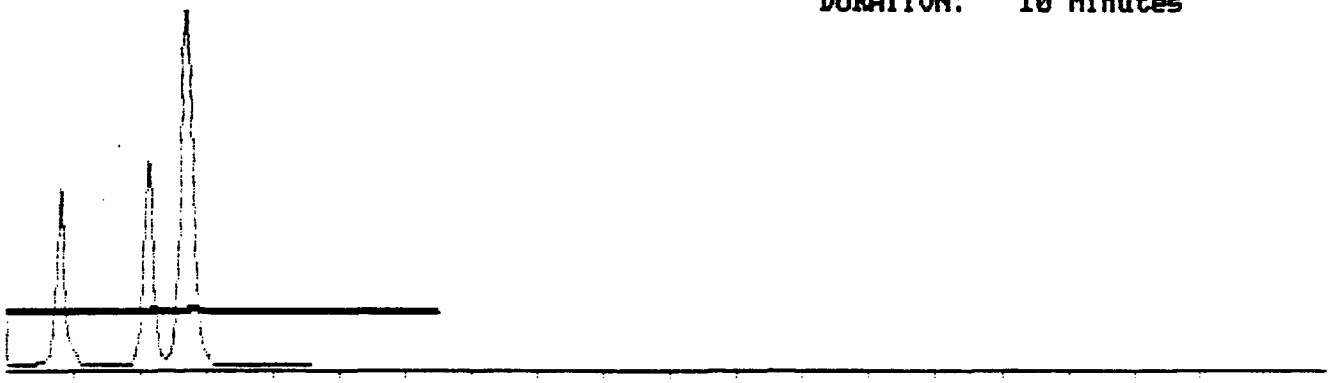
DETECTOR: AID

TEMPERATURE: 60-60 , 0 Secs

SAMPLE TIME:12

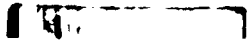
GAIN: 1.000

DURATION: 10 Minutes



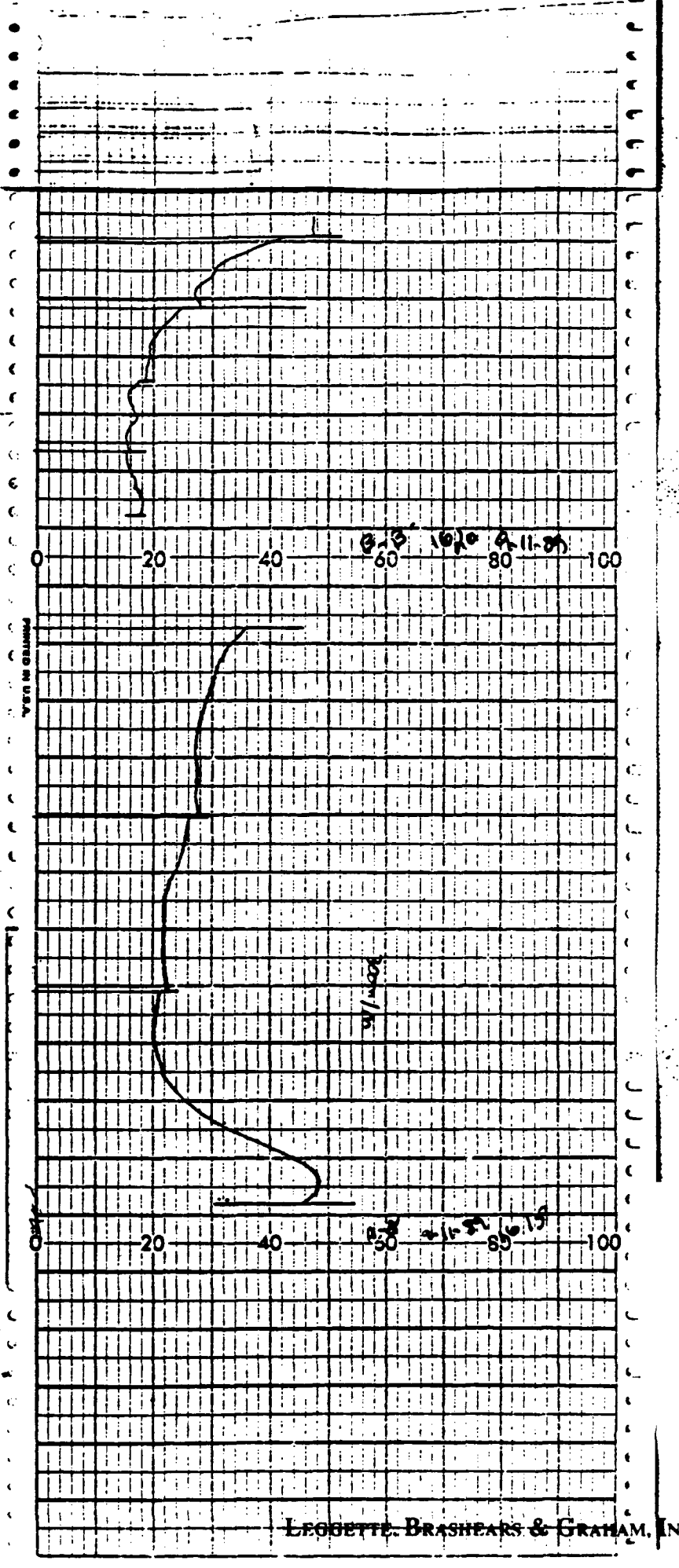
HKR 001 09/22

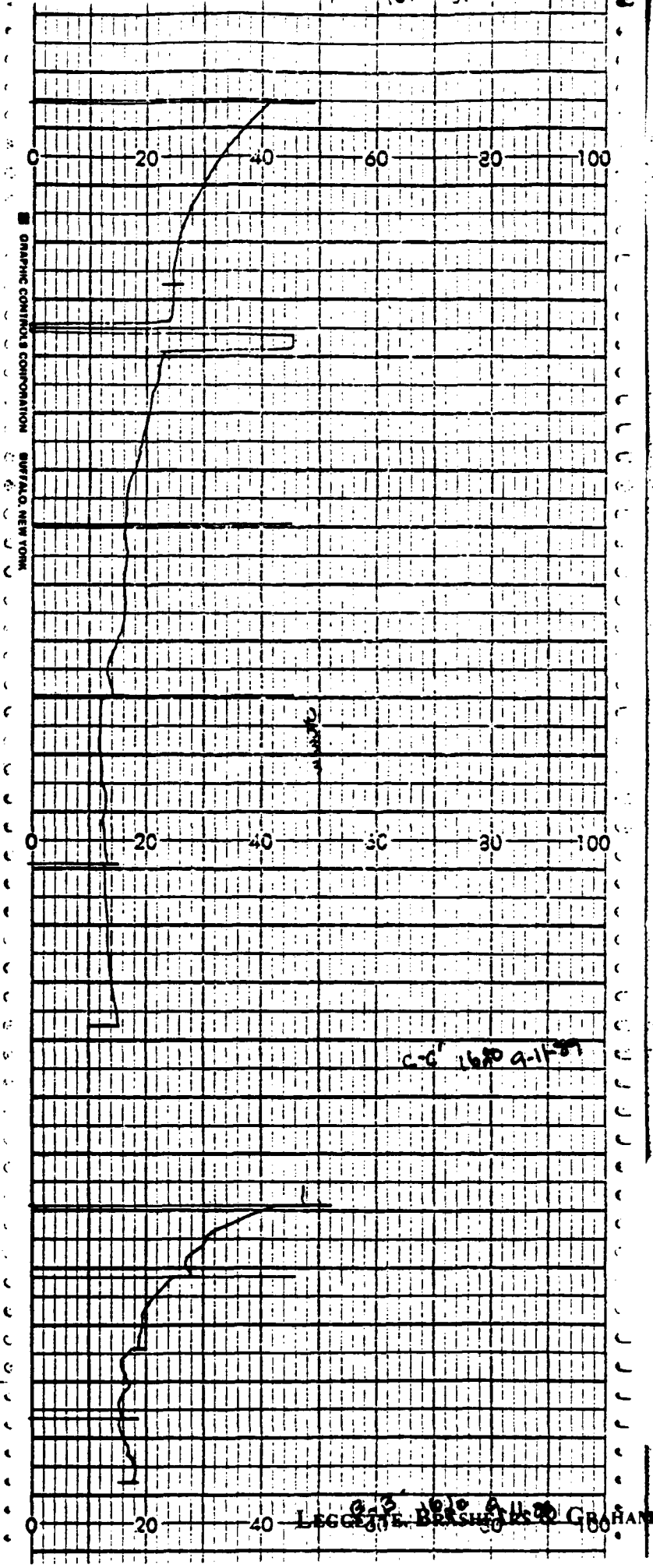
LEGGETTE, BRASHEARS & GRAHAM, INC.



APPENDIX 9

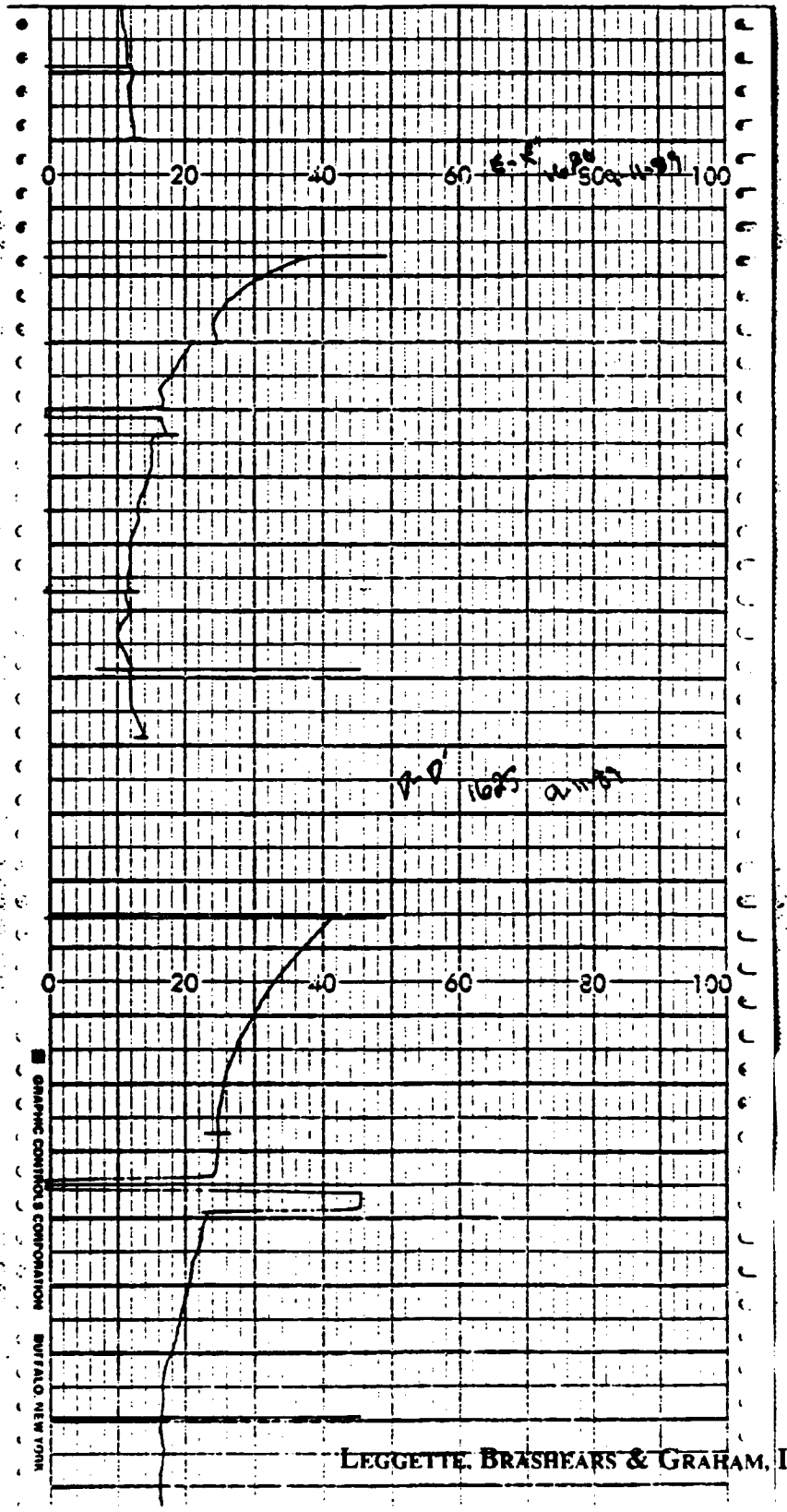
Electromagnetic Conductivity Data


0
20
40
60
80
100
PRINTED IN U.S.A.
0
20
40
50
80
100



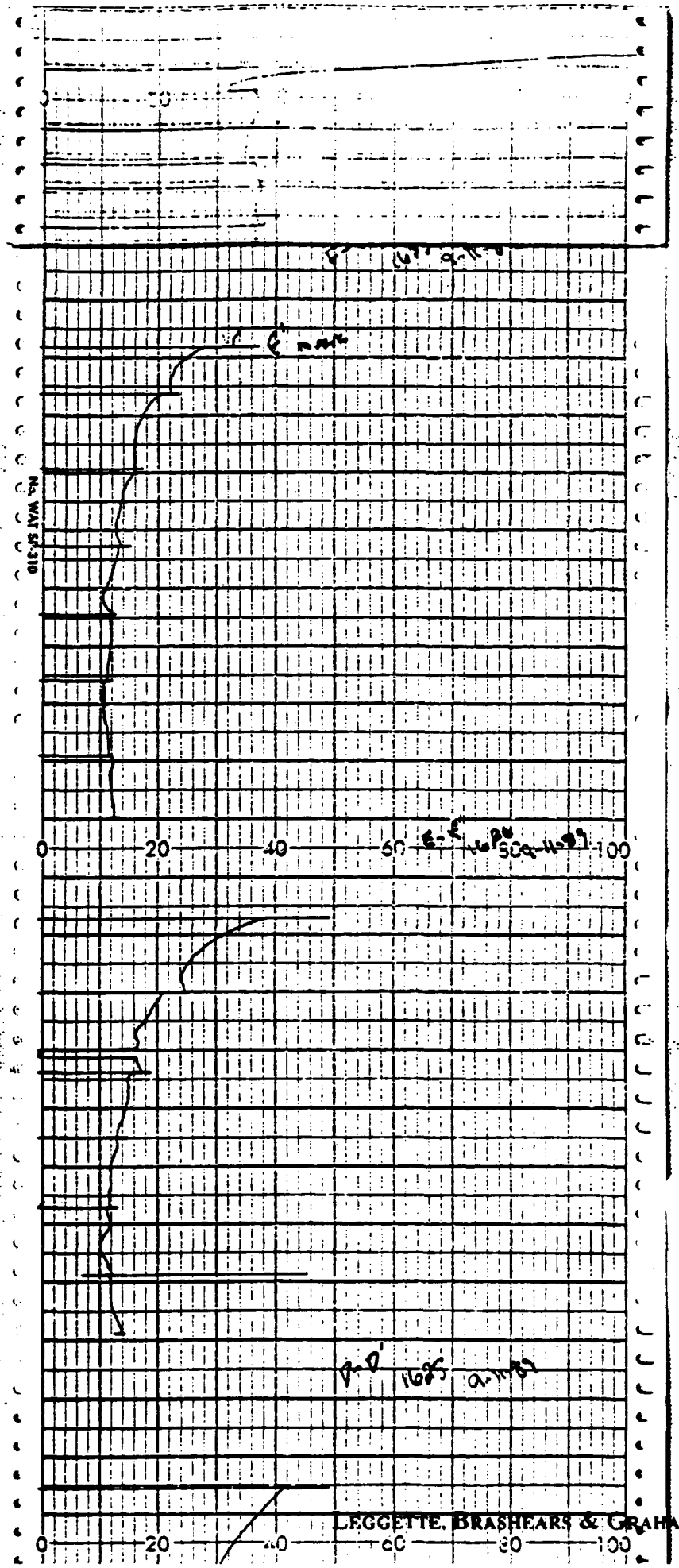
HKR 001 0926

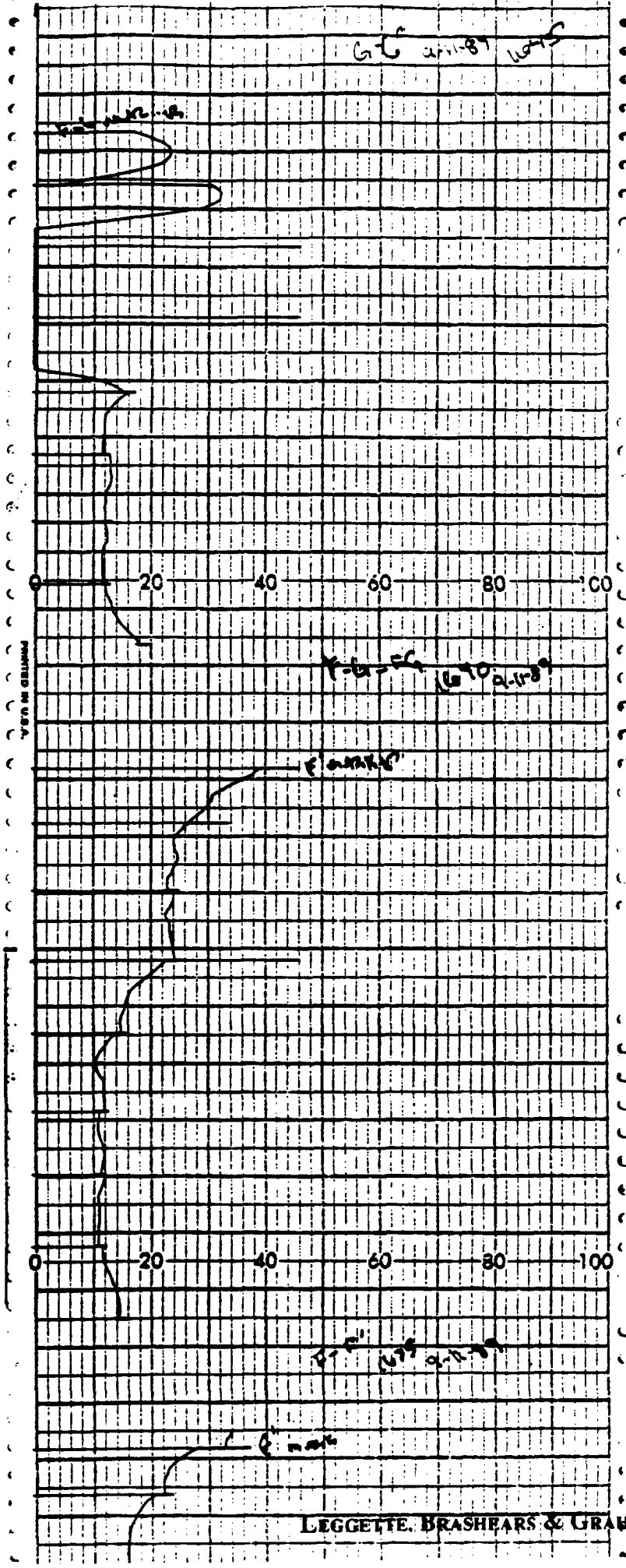
LEGGETTE, BRASHEARS & GRAHAM, INC.

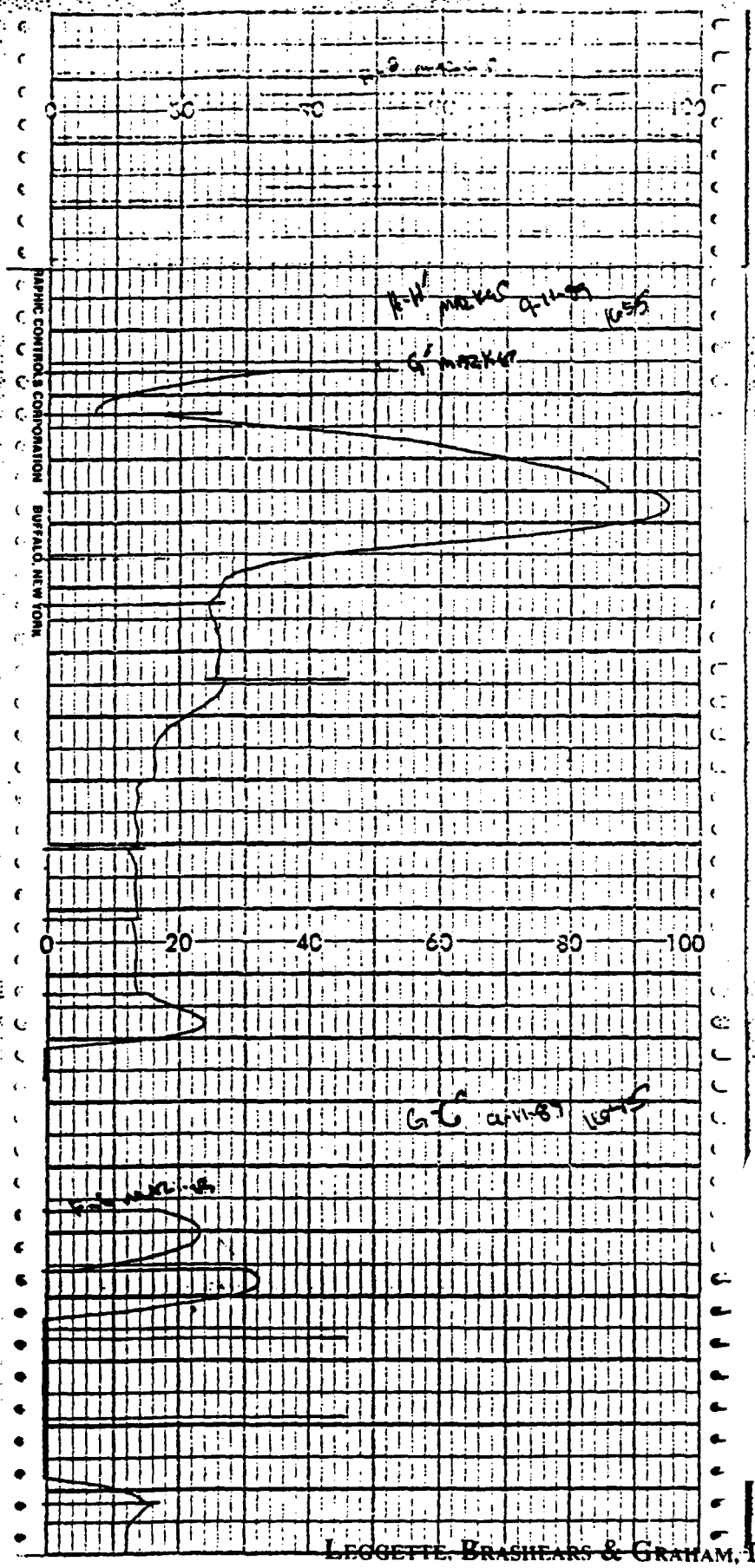


LEGGETTE, BRASHEARS & GRAHAM, INC.

HKR 001 0927

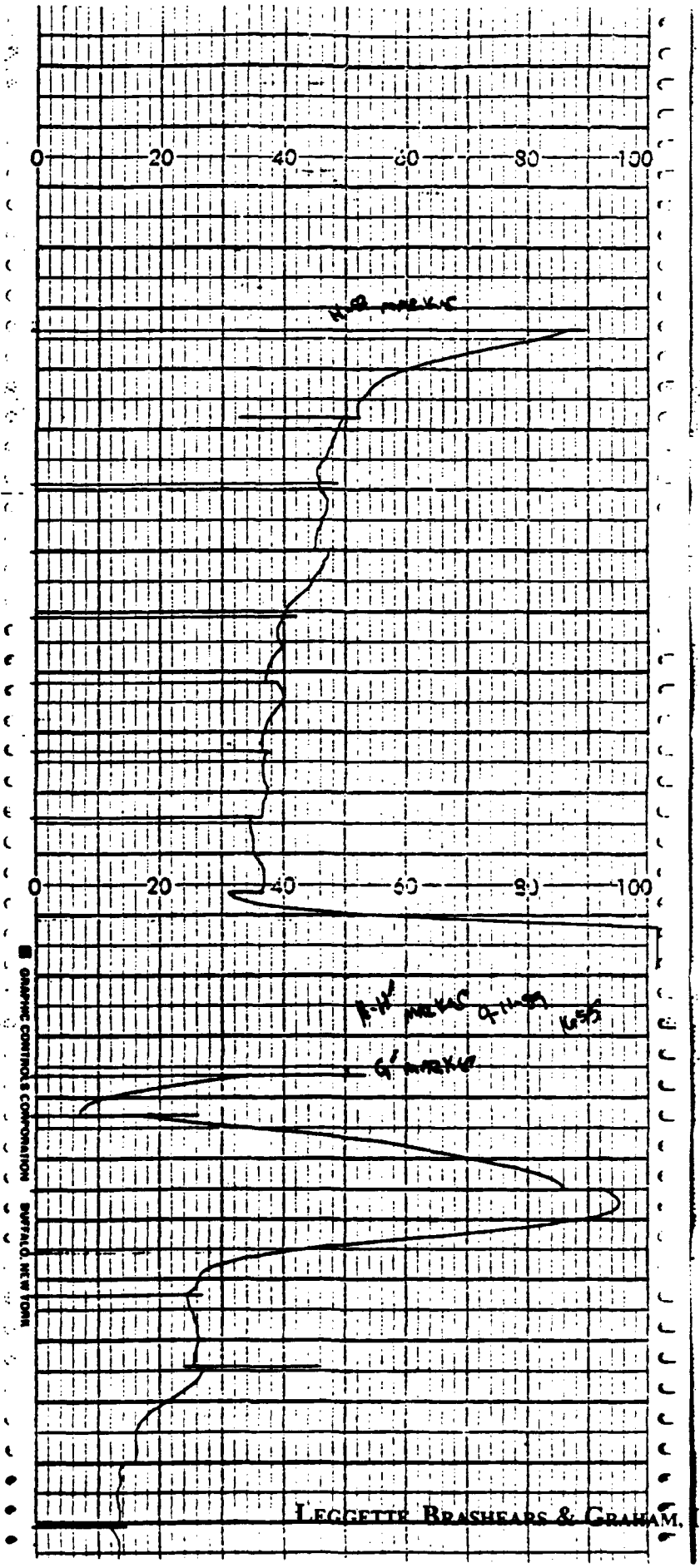






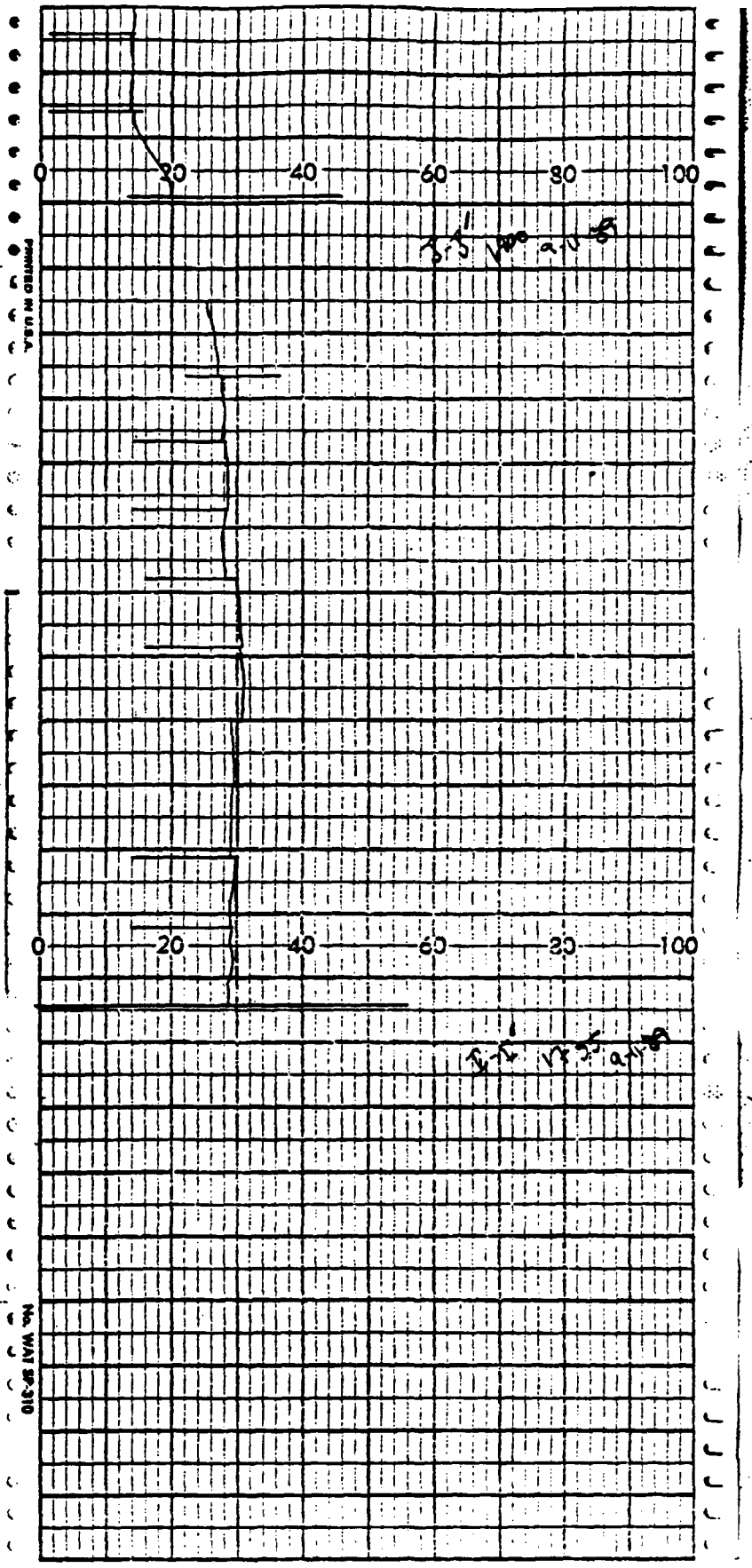
HKR 001 0930

LEGGETTE, BRASHEARS & GRAHAM, INC.

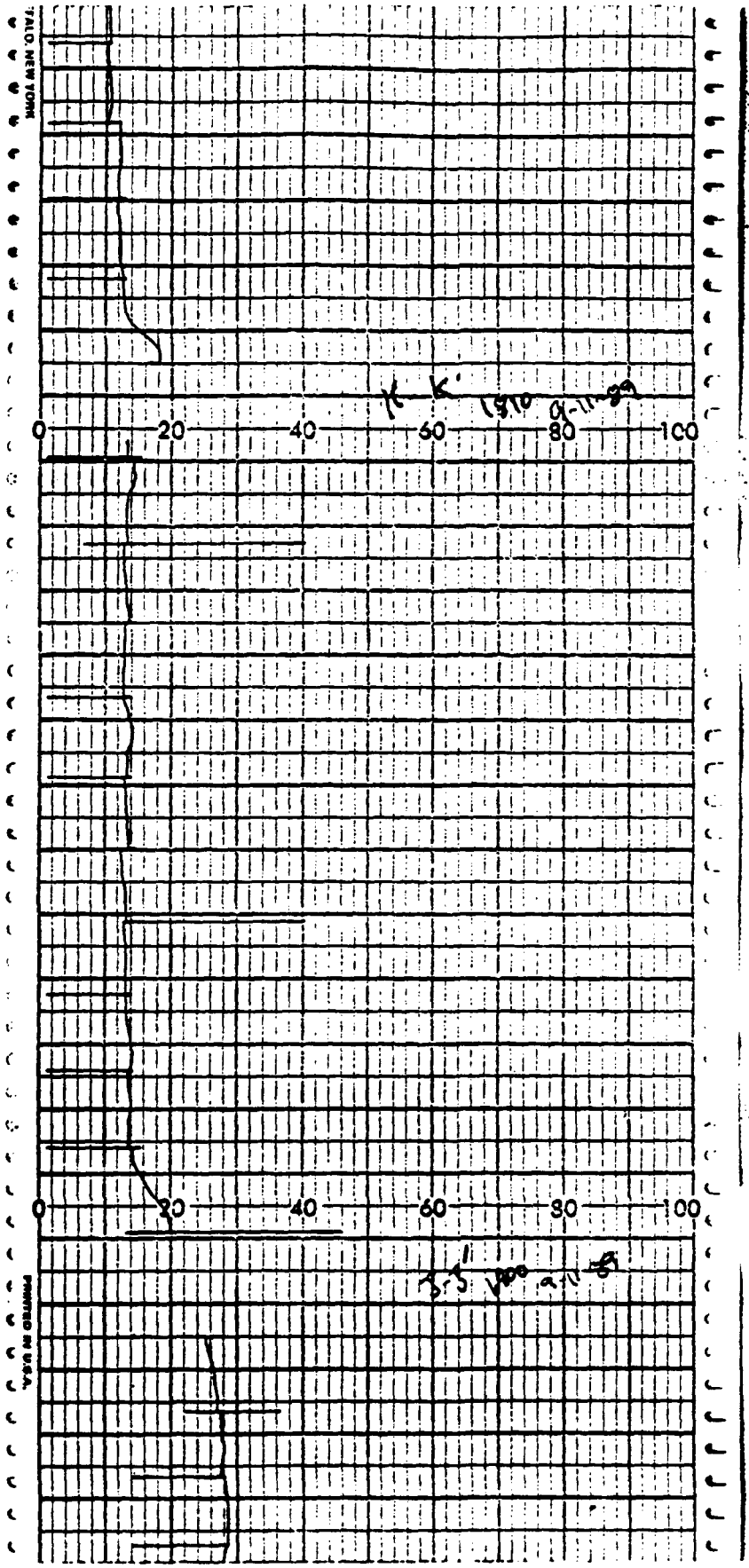


HKR 001 0931

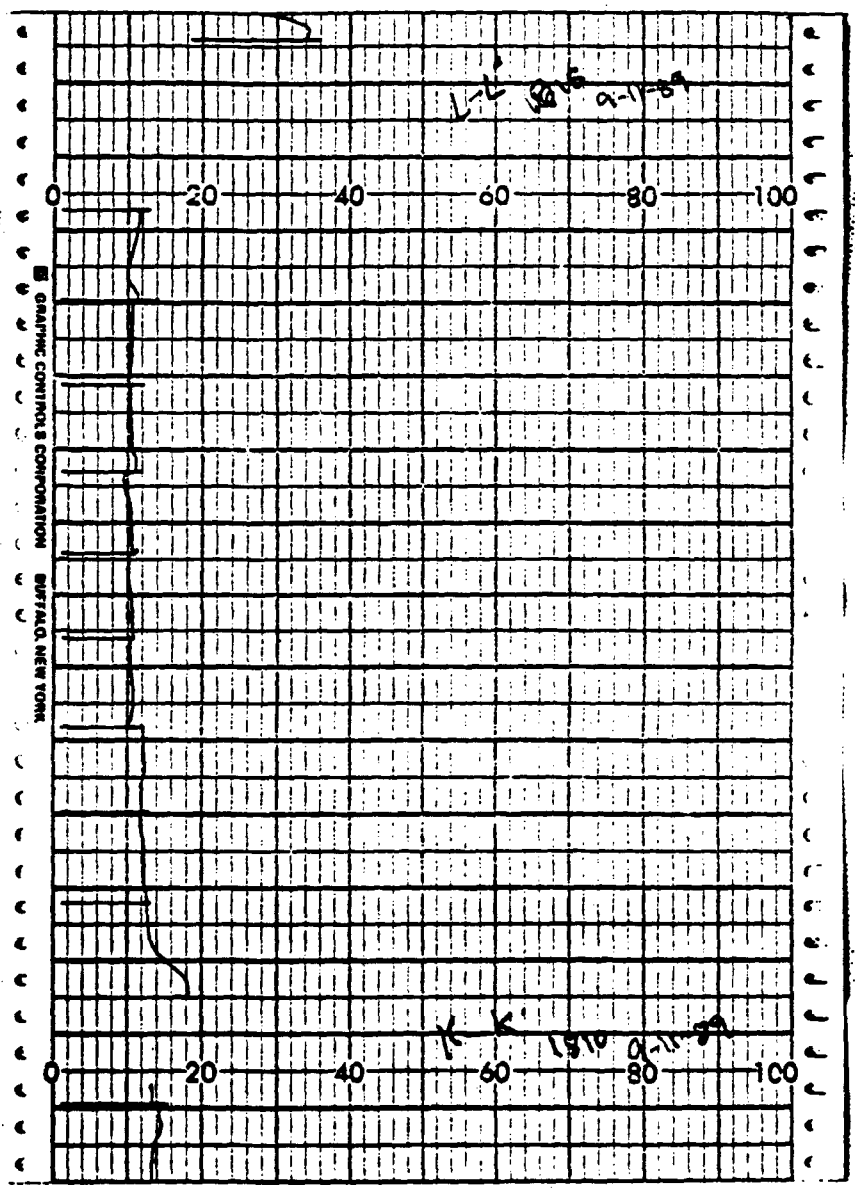
LEGGETTE BRASHEARS & GRAHAM, INC.



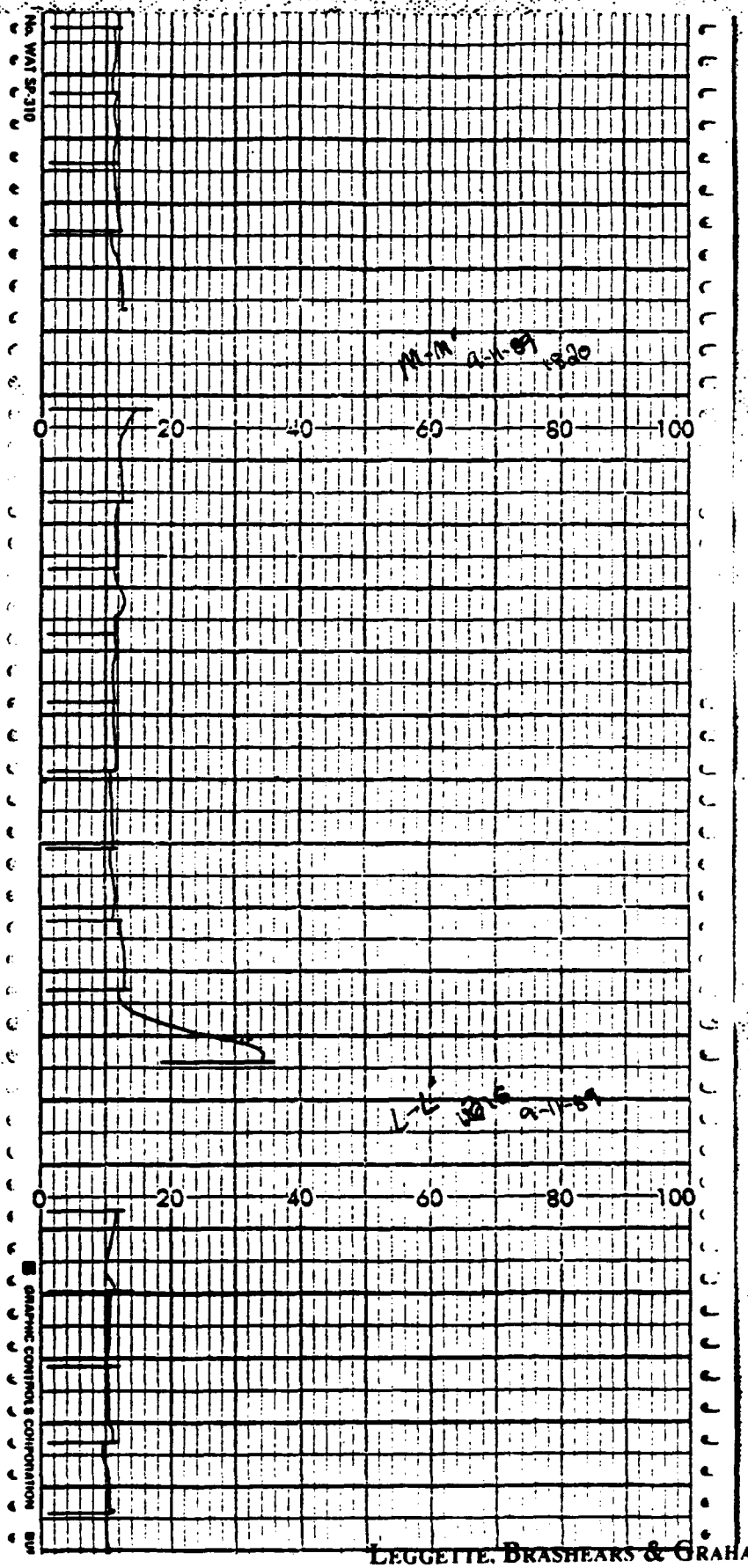
HKR 001 0932


BUFFALO, NEW YORK
0
20
40
60
80
100
0
20
40
60
80
100
PRINTED IN U.S.A.

HKR 001 0933

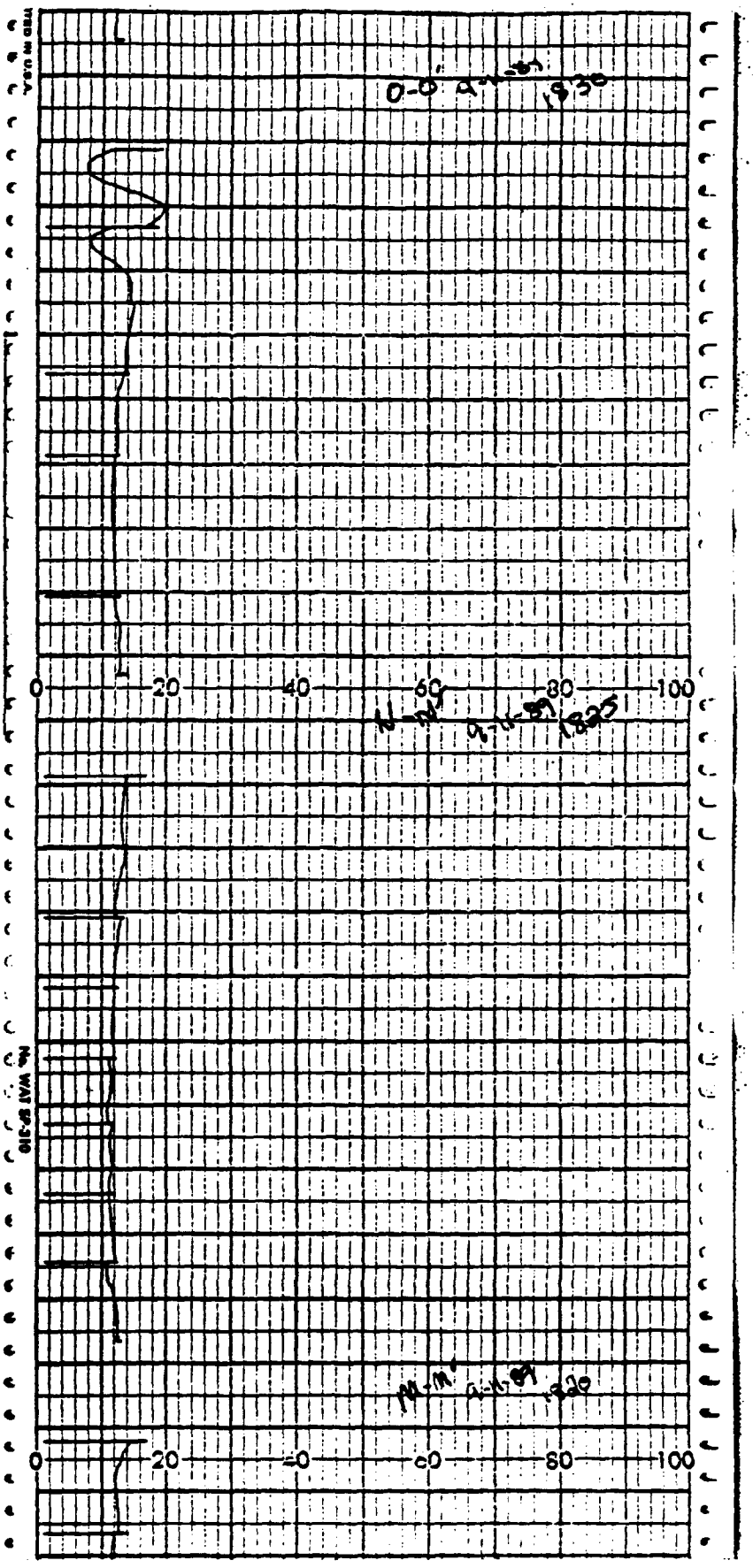

L-L' 8/6 9-1-89
0
20
40
60
80
100
GRAPHIC CONTROLS CORPORATION BUFFALO, NEW YORK
K-K' 1910 9-11-89
0
20
40
60
80
100

HKR 001 0934

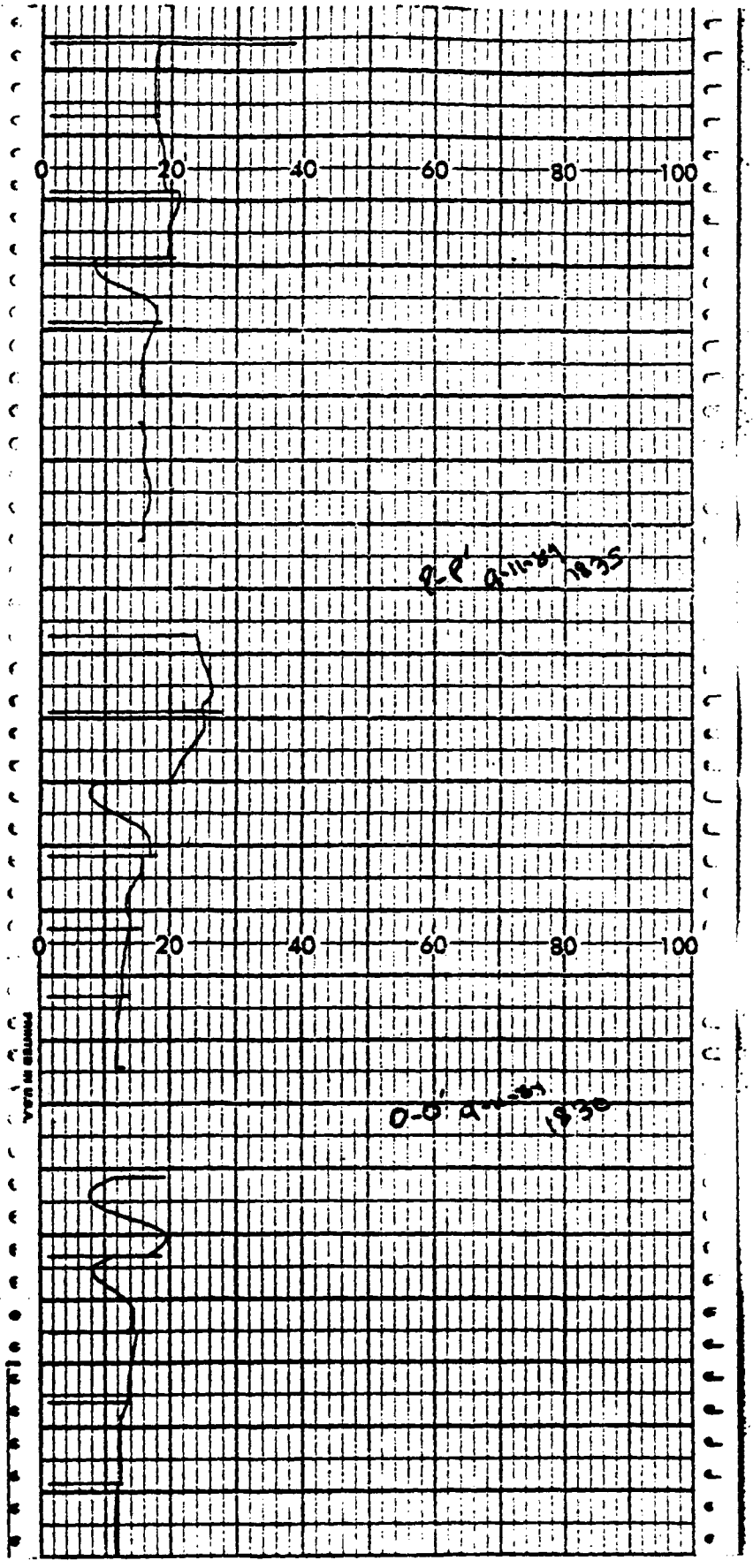


HKR 001 0935

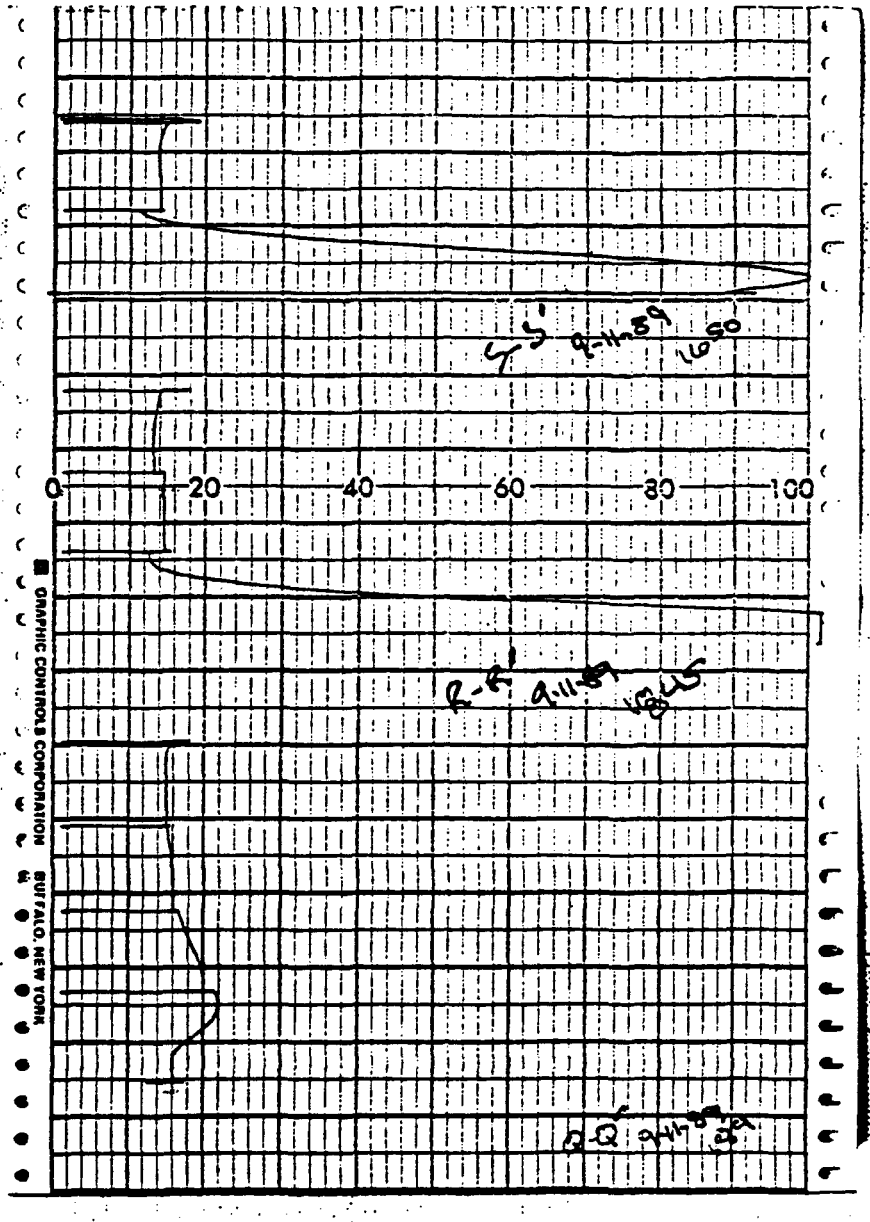
LEGGETTE, BRASHEARS & GRAHAM, INC.



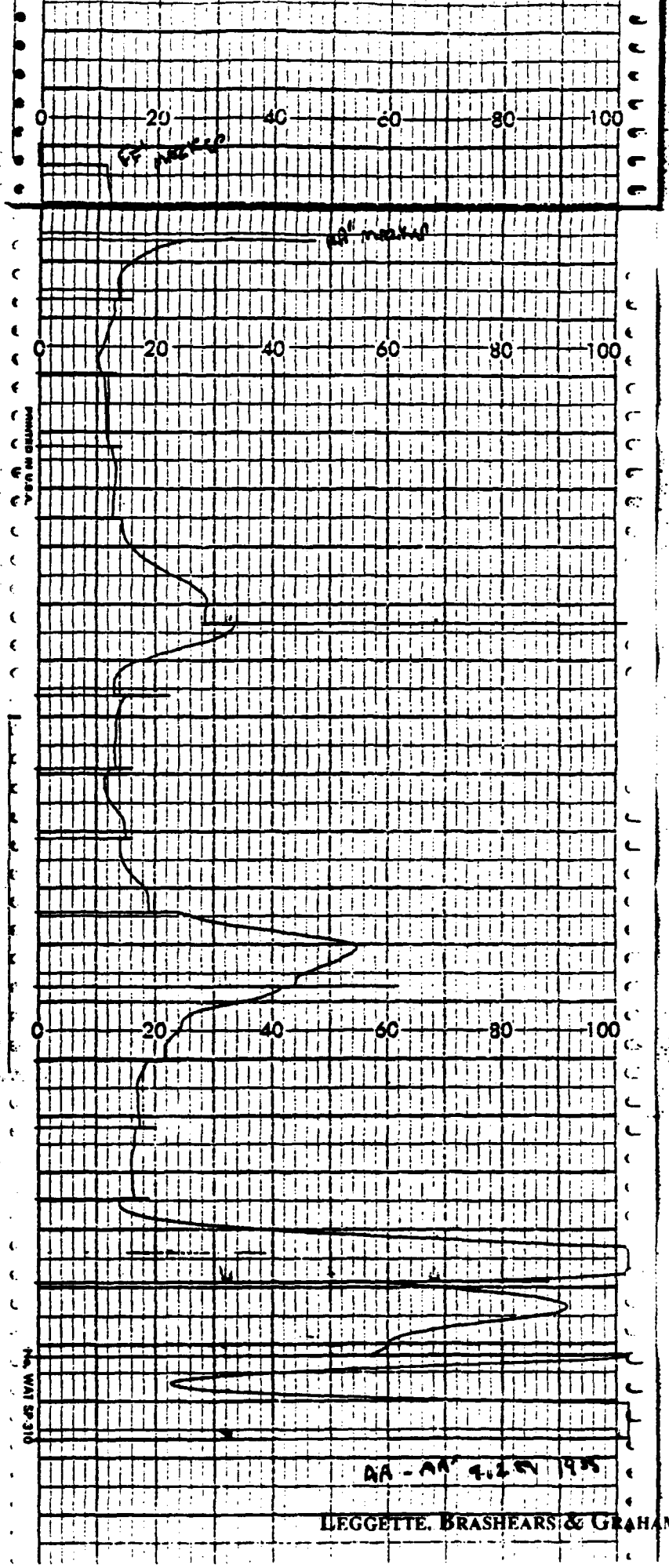
HKR 001 0936



HKR 001 0937

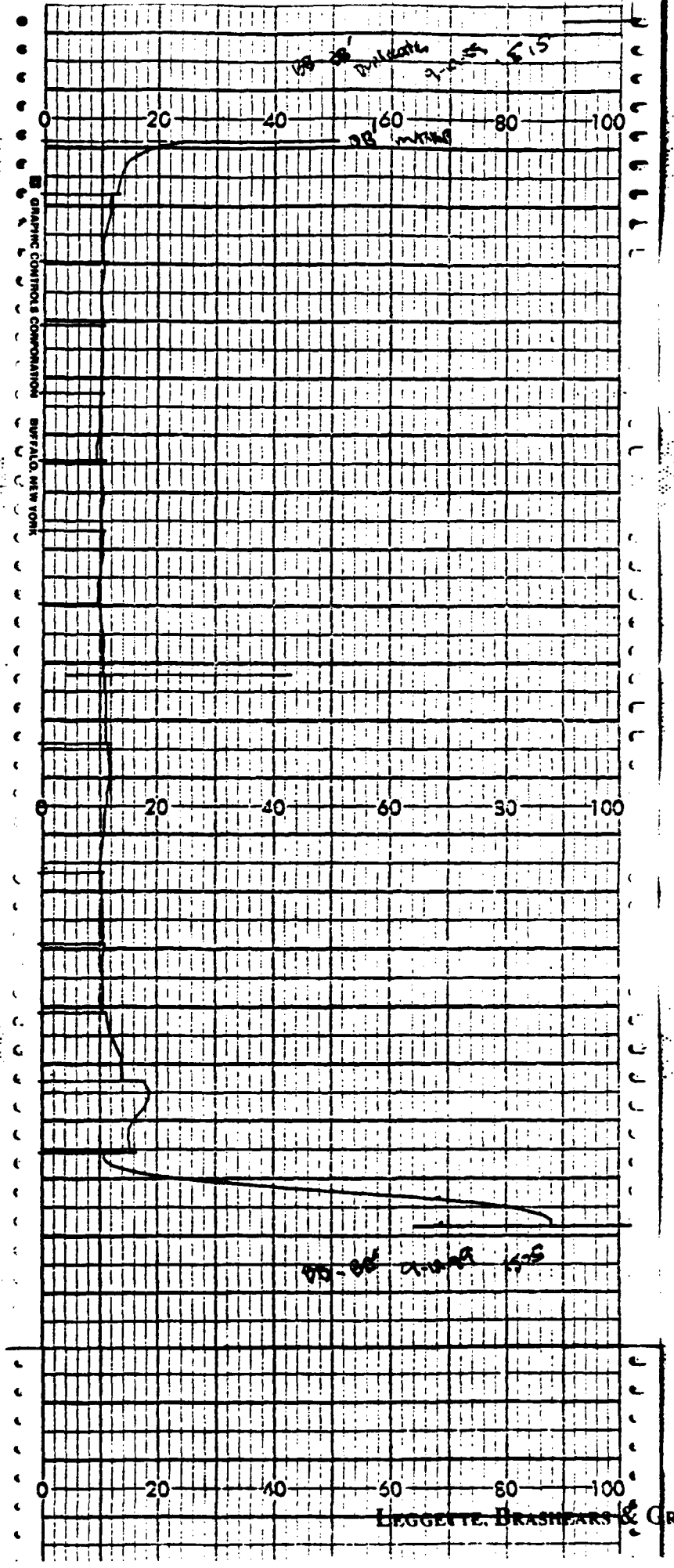

0
20
40
60
80
100
GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK

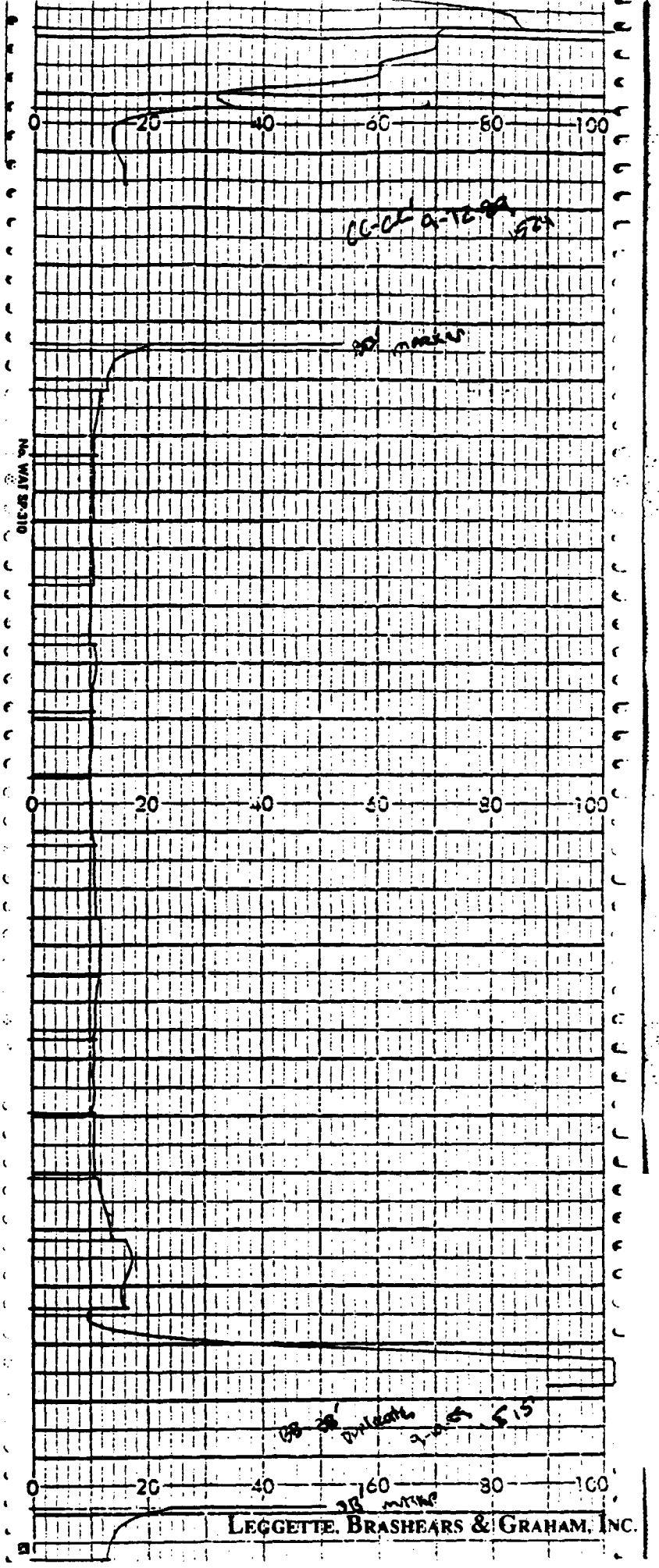
HKR 001 0938



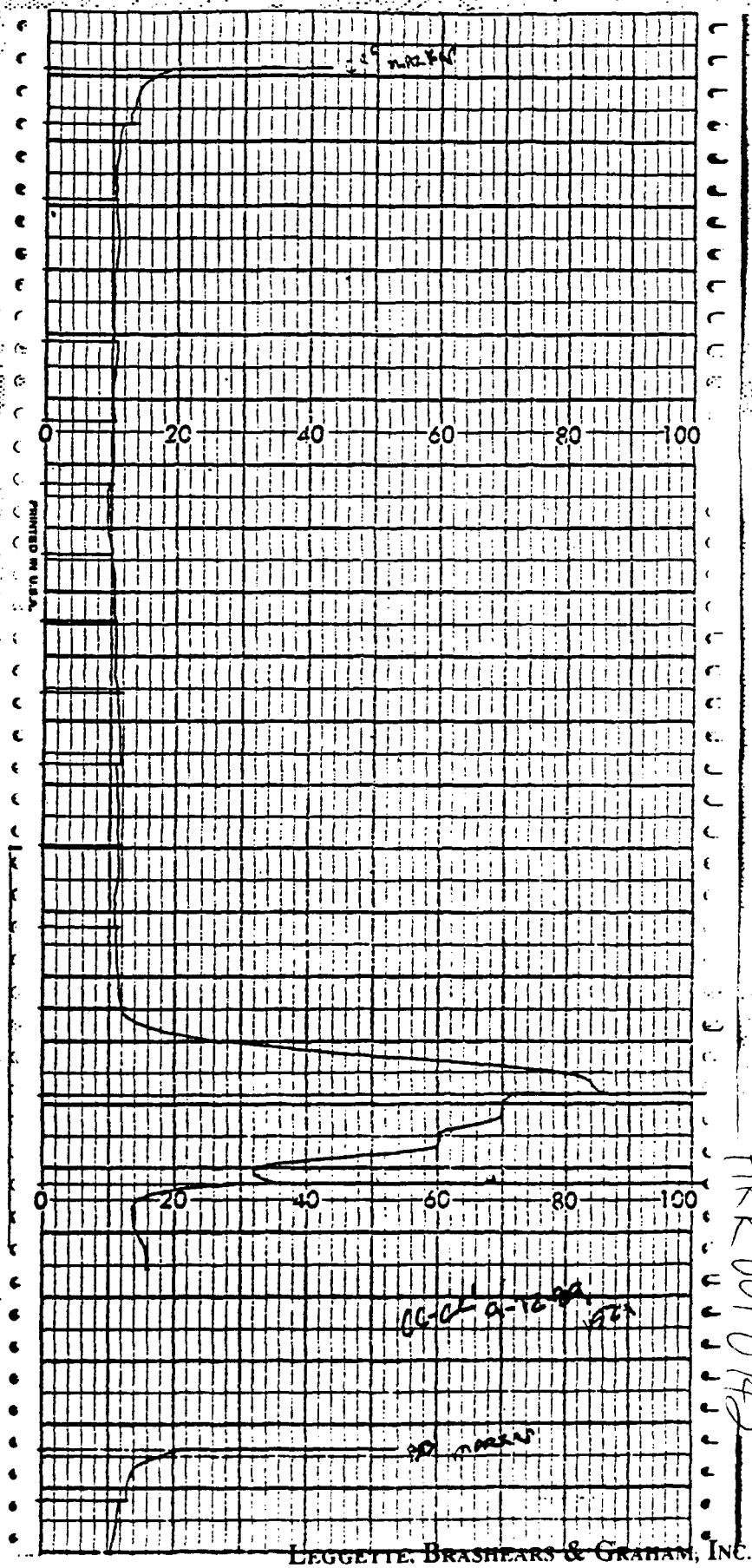
HKR 001 0939

LEGGETTE, BRASHEARS & GRAHAM, INC.

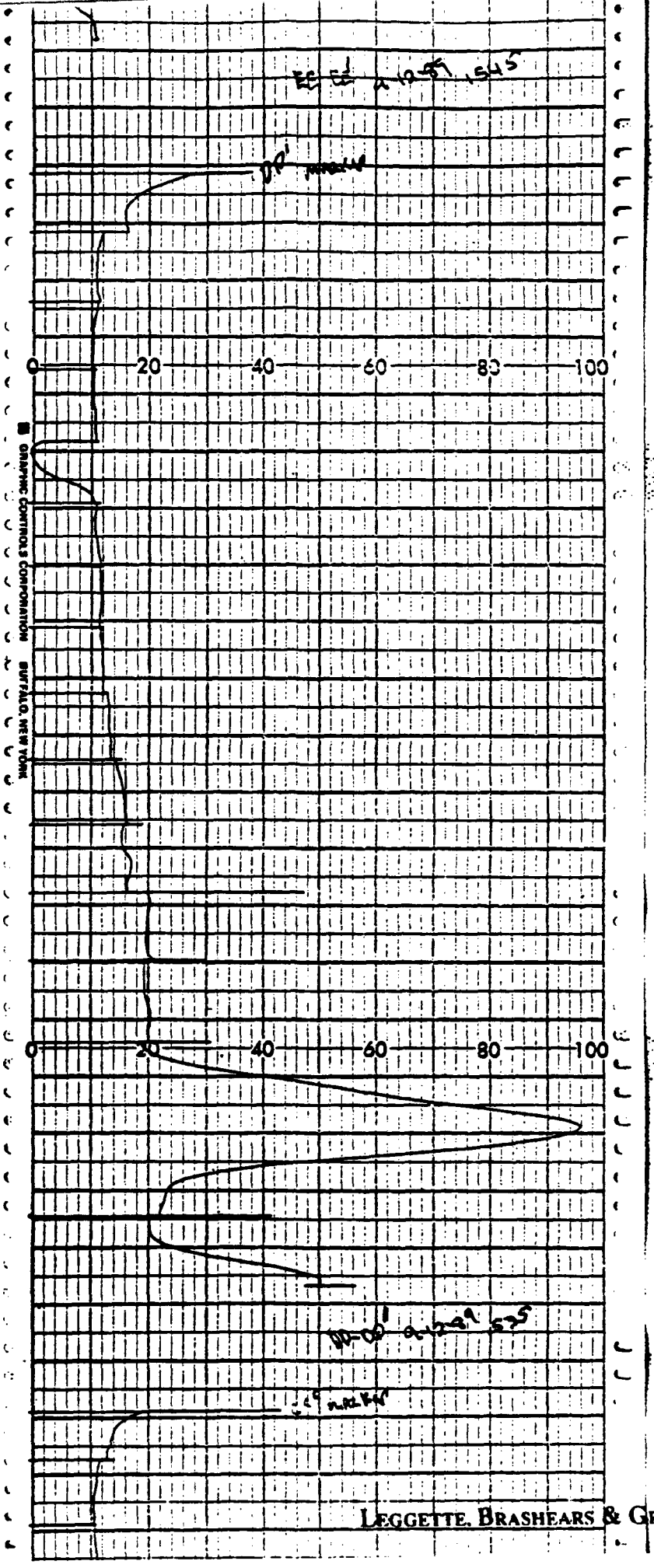

0
20
40
60
80
100
GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK



HKR 001 0941

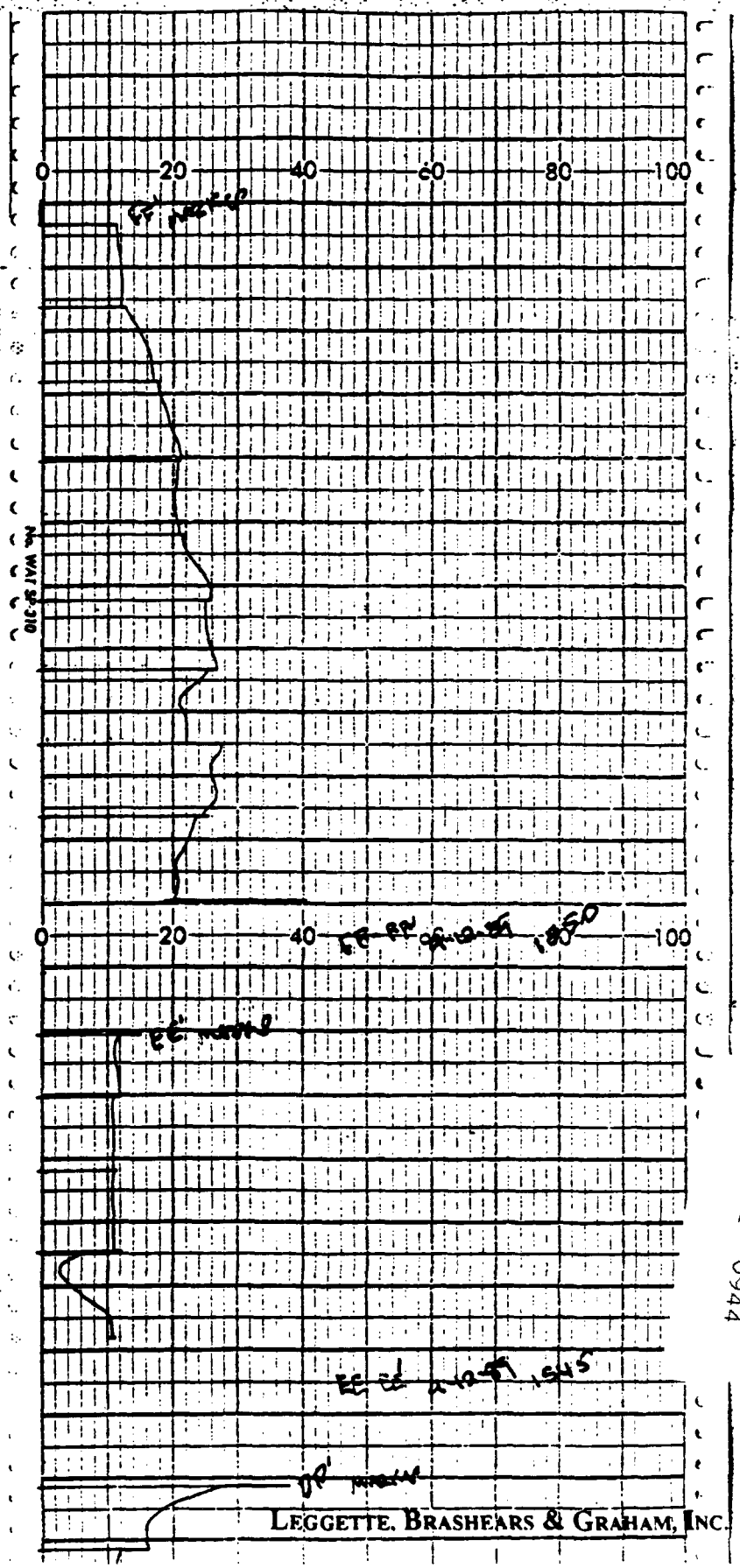


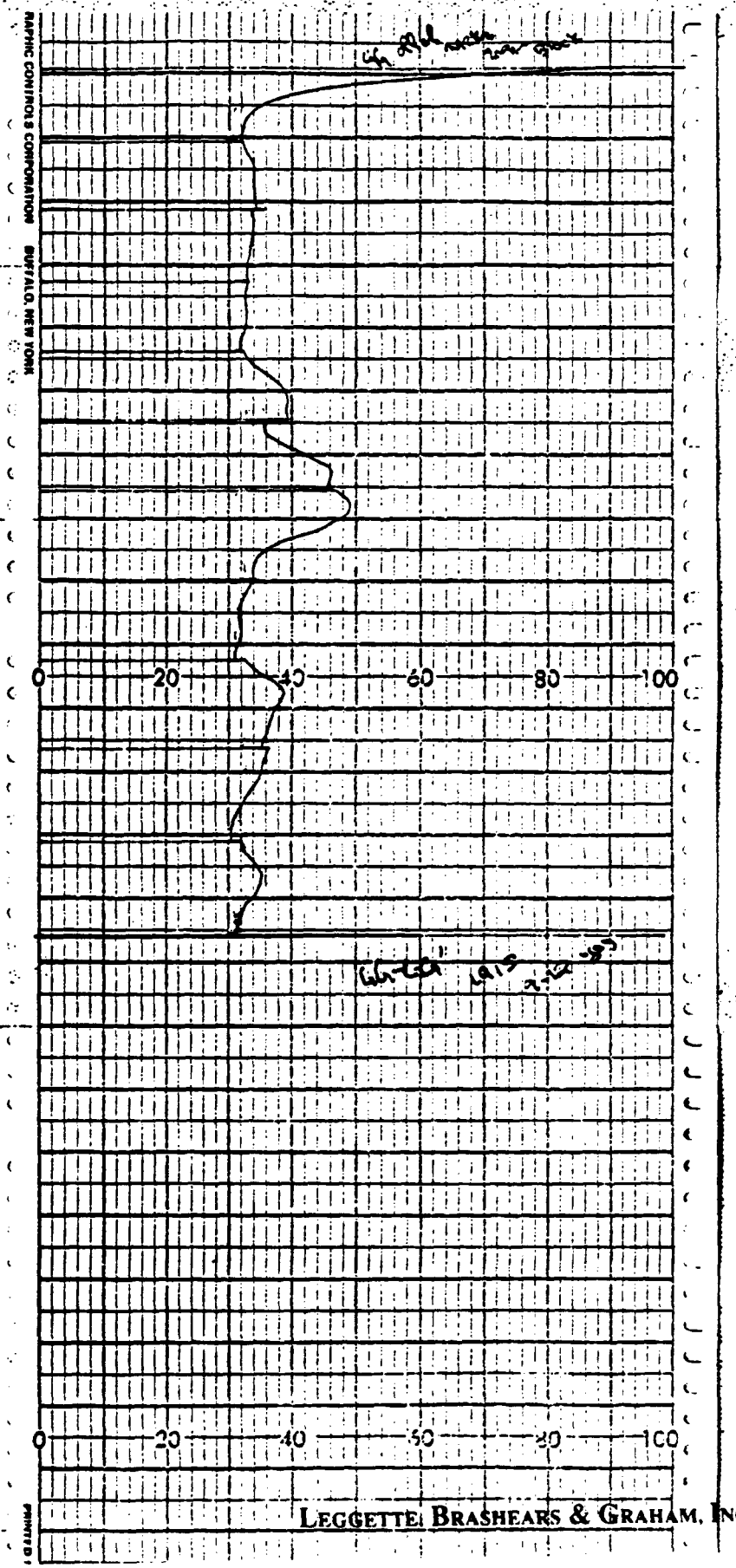
HKR 001 094

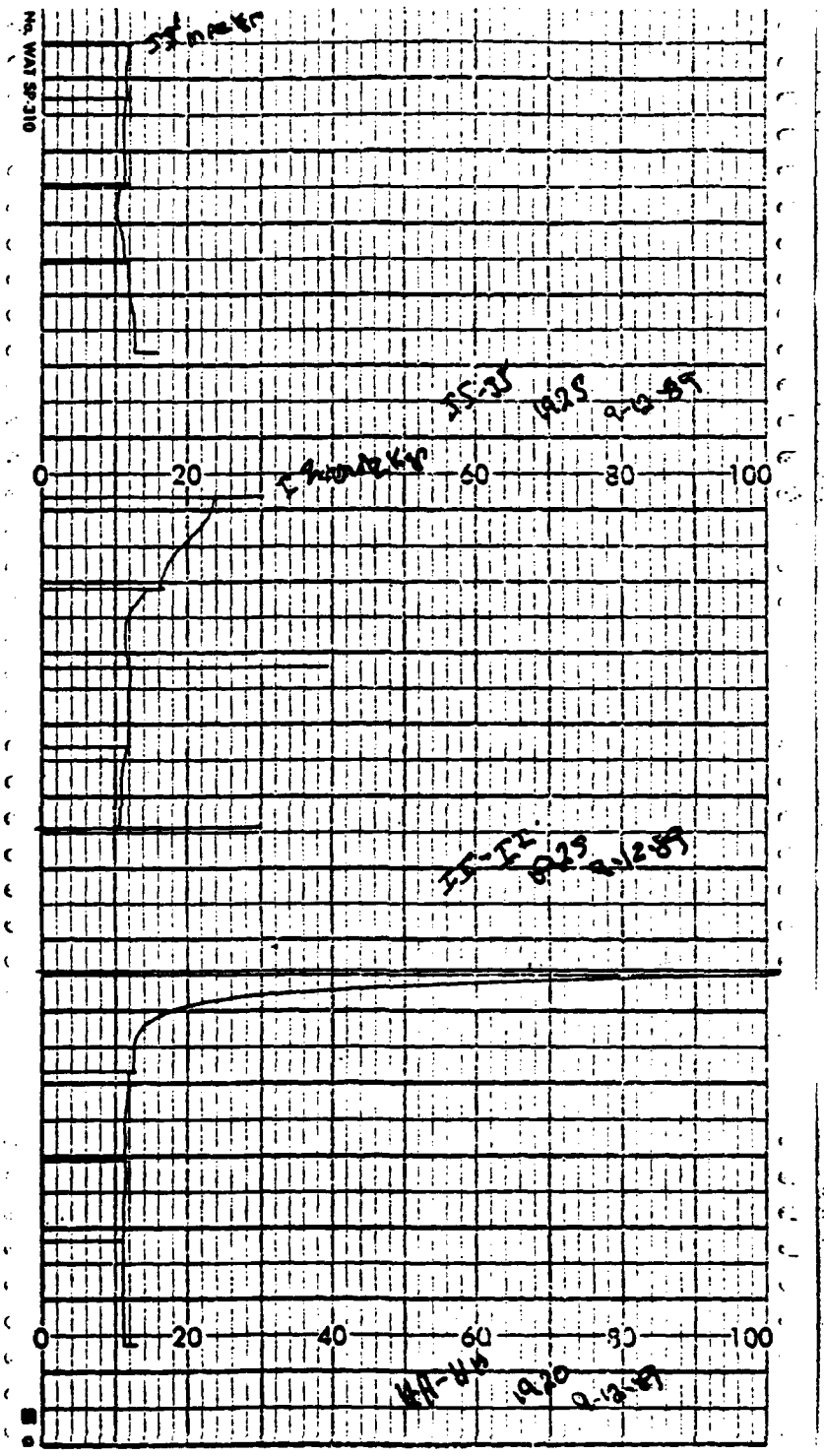


HKR 001 0943

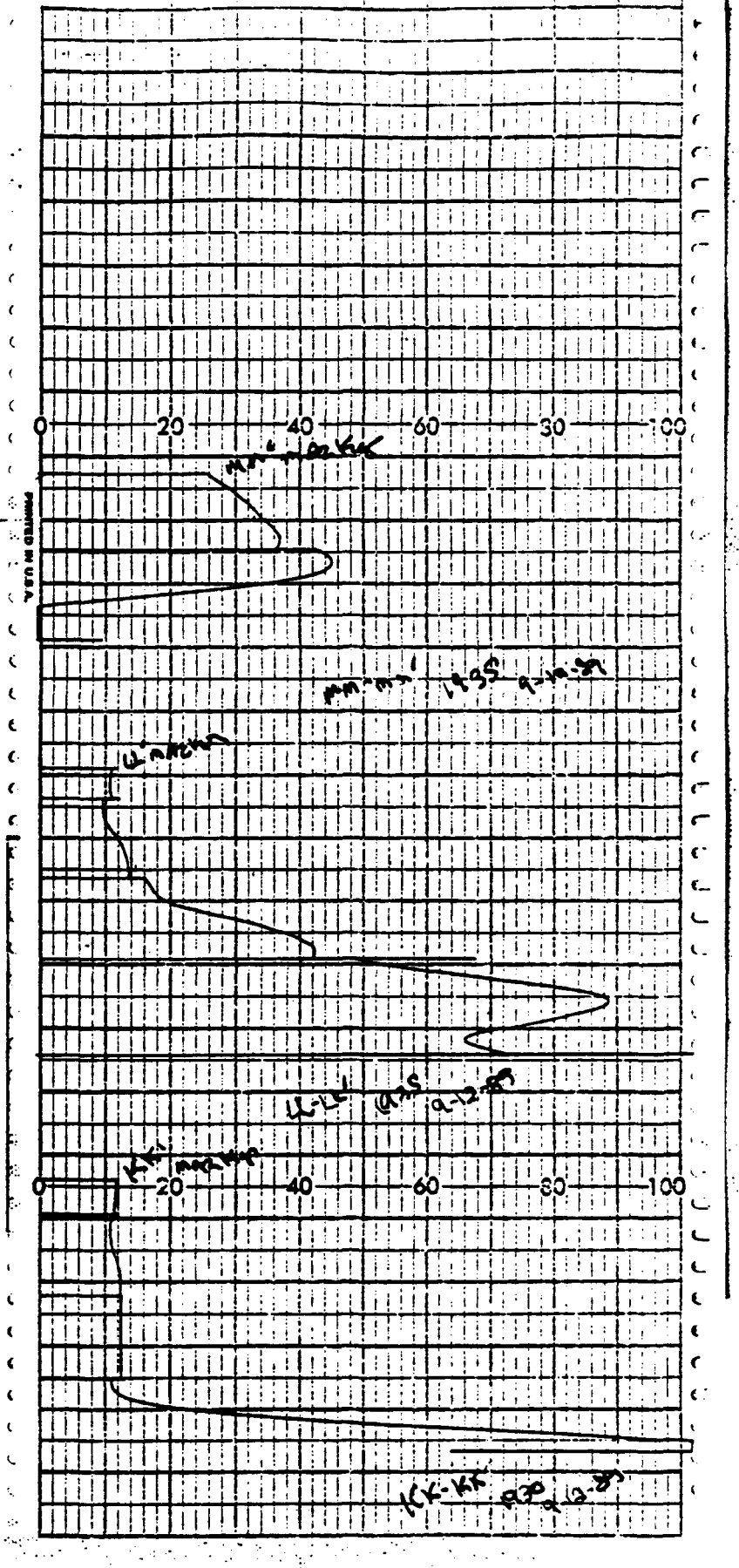
LEGGETTE, BRASHEARS & GRAHAM, INC.

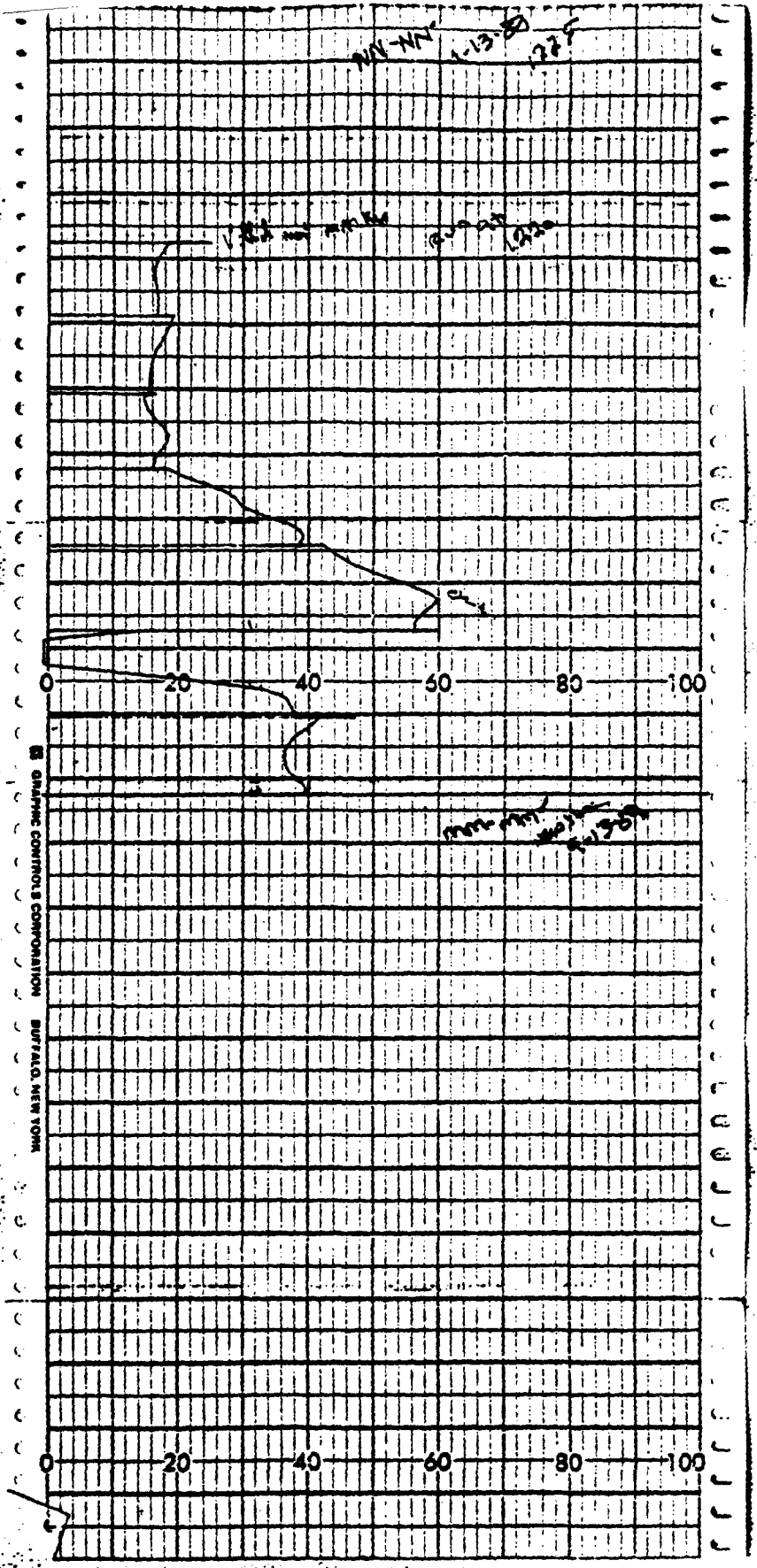



RAPID CONTROLS CORPORATION BUFFALO, NEW YORK
0
20
40
60
80
100
0
20
40
60
80
100
PRINTED

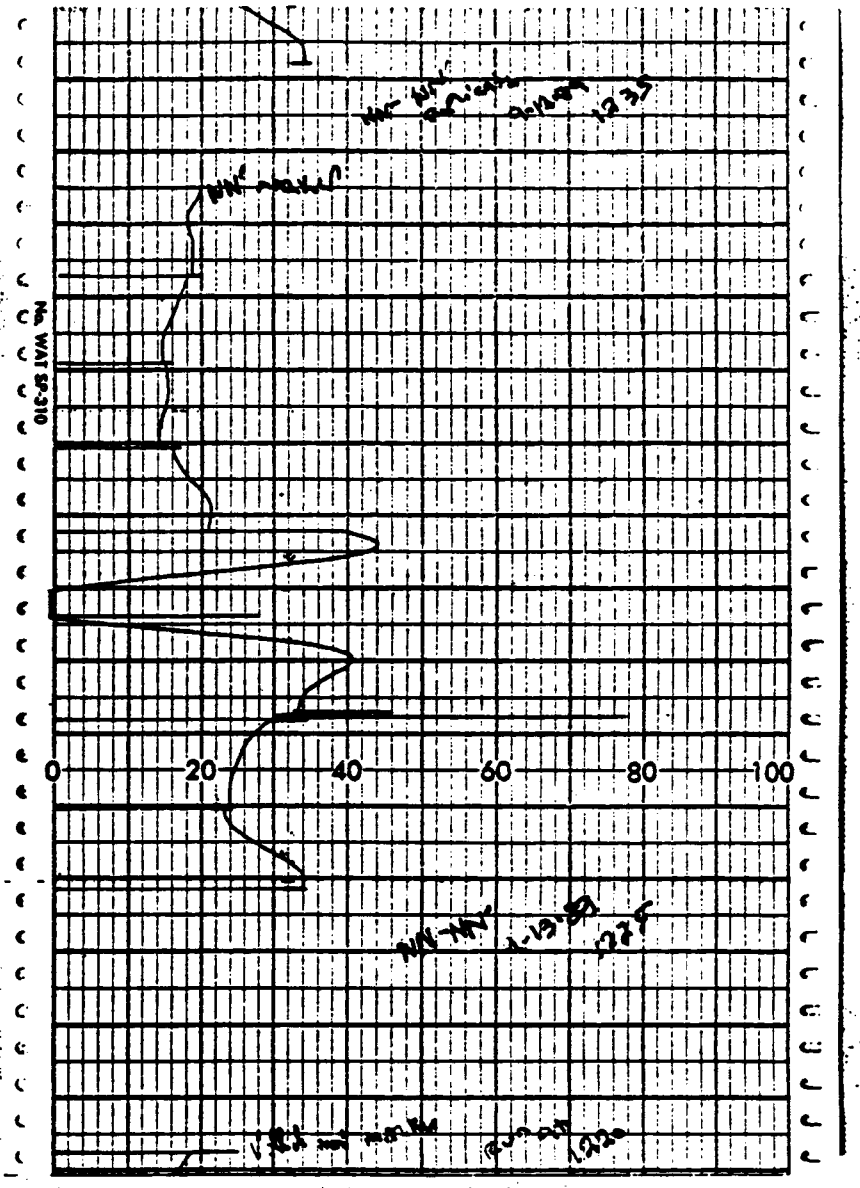


HKR 001 0946

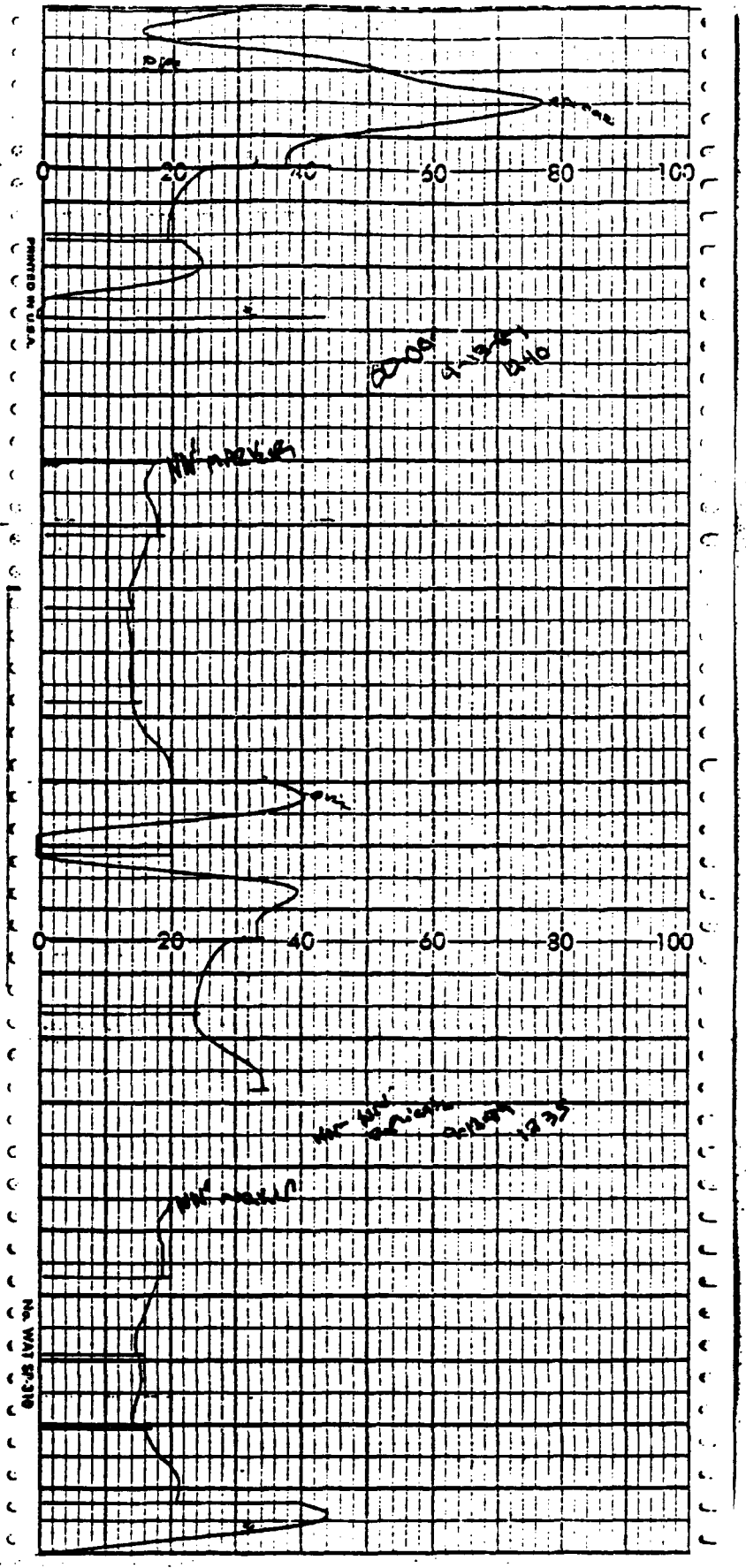



0
20
40
60
80
100
GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
0
20
40
60
80
100

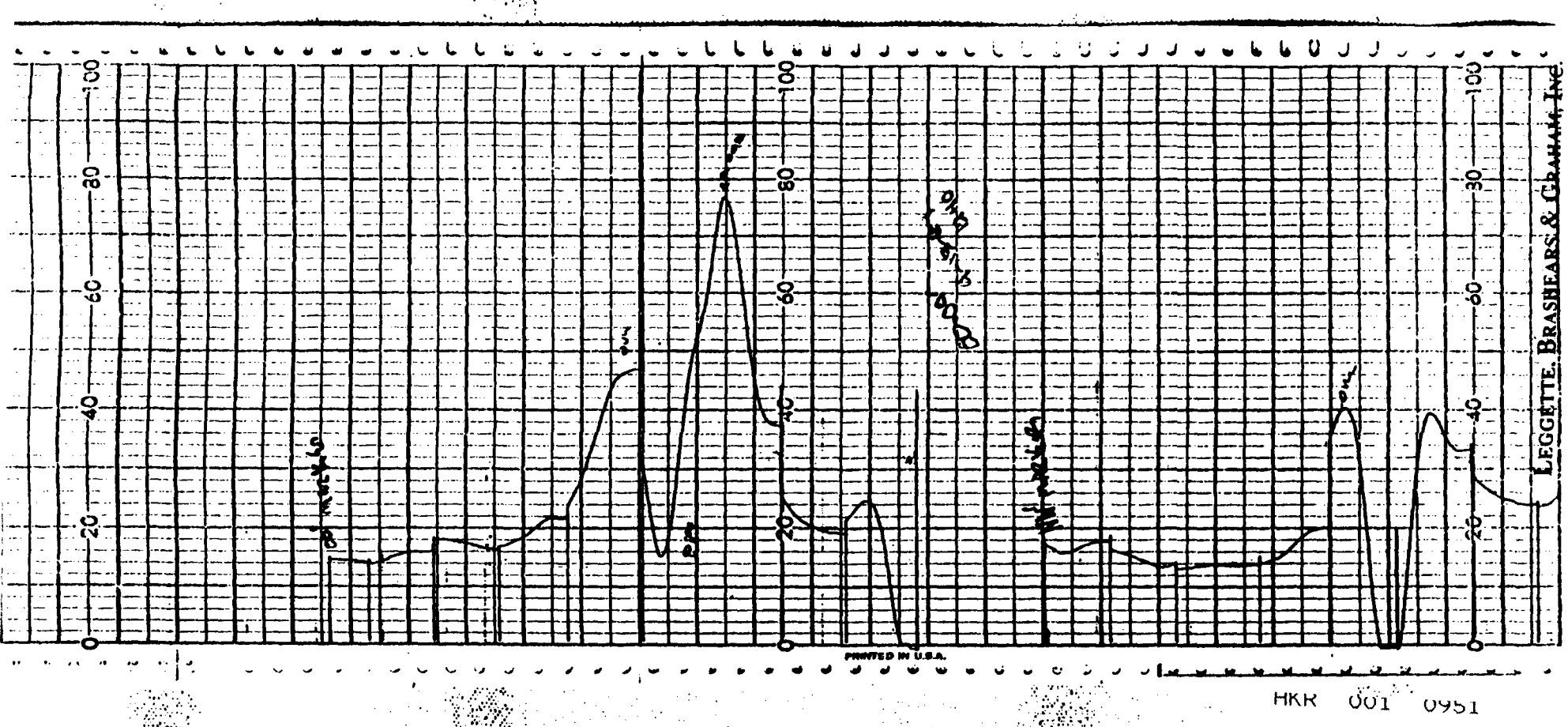
HKR 001 0948



HKR 001 0949



HKK 001 0950


0
20
40
60
80
100
LEGGETTE, BRASHEARS & GRAHAM, INC.
PRINTED IN U.S.A.

HKR 001 0951

APPENDIX

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Western Study Area
Tabular Results of EM-Survey
(all readings in mmho's/meter)

EM-Traverse	Inphase instrument reading	Quadraphase instrument reading
A-A	46	34
	21	22
	26	28
	36	NR
B-B	18	17
	16	16
	17	19
	26	27
	42	50
C-C	15	14
	13	14
	14	15
	16	18
	23	25
	41	48
D-D	14	14
	12	12
	12	12
	15	15
	21	18
	24	24
	49	49
E-E	13	13
	12	12
	11	12
	12	12
	13	14
	16	17
	22	24
	33	36

APPENDIX
(continued)

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Western Study Area
Tabular Results of EM-Survey
(all readings in mmho's/meter)

EM-Traverse	Inphase instrument reading	Quadraphase instrument reading
F-F	14	15
	11	12
	12	12
	11	12
	14	15
	22	25
	23	24
	28	31
	39	44
Fg-Fg	18	19
	12	12
	12	12
	12	12
	16	16
	0	+100
	0	+100
	0	+100
	0	+100
G-G	0	57
	13	13
	13	13
	12	14
	14	16
	27	27
	24	15
	89	63
	18	25
	36	50

APPENDIX
(continued)

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Western Study Area
Tabular Results of EM-Survey
(all readings in mmho's/meter)

EM-Traverse	Inphase instrument reading	Quadraphase instrument reading
H-H	+100	NR
	37	NR
	35	NR
	37	NR
	37	NR
	40	NR
	46	NR
	46	NR
	50	NR
	86	NR
I-I	29	NR
	29	NR
	29	NR
	29	NR
	29	NR
	30	NR
	28	NR
	28	NR
	28	NR
	27	NR
J-J	20	18
	14	14
	14	13
	13	12
	13	12
	13	13
	13	12
	13	12
	13	12
	11	12
	12	14

APPENDIX
(continued)

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Western Study Area
Tabular Results of EM-Survey
(all readings in mmho's/meter)

EM-Traverse	Inphase instrument reading	Quadraphase instrument reading
K-K	18	17
	13	12
	12	11
	12	11
	10	11
	10	12
	10	11
	10	11
	10	12
	13	13
L-L	34	18
	12	12
	11	11
	11	10
	11	10
	11	11
	12	11
	12	11
	12	12
	14	15
M-M	12	12
	11	11
	11	10
	12	11
	11	11
	12	11
	13	12
	14	14
	14	15

APPENDIX
(continued)

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Western Study Area
Tabular Results of EM-Survey
(all readings in mmho's/meter)

EM-Traverse	Inphase instrument reading	Quadraphase instrument reading
N-N	13	13
	12	10
	12	11
	12	12
	13	13
	15	16
	11	14
	18	18
O-O	12	12
	13	13
	14	14
	16	18
	8	14
	25	28
	24	20
P-P	16	16
	18	19
	8	14
	21	21
	18	18
	18	23
Q-Q	16	12
	21	21
	16	16
	15	15
	17	17
R-R	+100	+100
	13	15
	13	13
	16	16

APPENDIX
(continued)

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Western Study Area
Tabular Results of EM-Survey
(all readings in mmho's/meter)

EM-Traverse	Inphase instrument reading	Quadraphase instrument reading
S-S	89	93
	12	14
	16	17

APPENDIX

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Tabular Results of Eastern Study Area

EM-Traverse	Inphase instrument reading	Quadraphase instrument reading
AA-AA	58	+100
	62	+100
	14	30
	16	19
	20	24
	42	0
	19	20
	14	16
	13	16
	13	18
	34	+100
	13	12
	12	14
	12	14
	13	16
	24	35
BB-BB	88	+100
	12	16
	14	16
	11	11
	10	11
	10	10
	11	12
	12	12
	11	92
	10	9
	10	11
	10	11
	10	10
	10	11
	10	11
	12	13
	24	30

APPENDIX
(continued)

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Tabular Results of Eastern Study Area

EM-Traverse	Inphase instrument reading	Quadraphase instrument reading
CC-CC	16	16
	36	36
	71	+100
	12	12
	11	12
	12	12
	11	12
	11	12
	10	11
	10	10
	10	10
	10	10
	10	10
	10	11
	10	10
	12	13
	20	NR
DD-DD	50	58
	20	44
	96	NR
	20	32
	20	32
	78	48
	18	20
	16	16
	16	13
	14	12
	12	12
	12	12
	12	11
	11	10
	2	12
	12	15
	28	40

APPENDIX
(continued)

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Tabular Results of Eastern Study Area

EM-Traverse	Inphase instrument reading	Quadraphase instrument reading
EE-EE	10	11
	6	12
	11	12
	11	12
	12	14
FF-FF	20	NR
	24	NR
	27	NR
	26	NR
	26	NR
	21	NR
	21	NR
	18	NR
	12	NR
	12	NR
	12	NR
GG-GG	31	NR
	32	NR
	36	NR
	32	NR
	34	NR
	46	NR
	36	NR
	32	NR
	33	NR
	34	NR
	32	NR
	68	NR
HH-HH	11	10
	11	11
	11	11
	12	13
	+100	74

APPENDIX
(continued)

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Tabular Results of Eastern Study Area

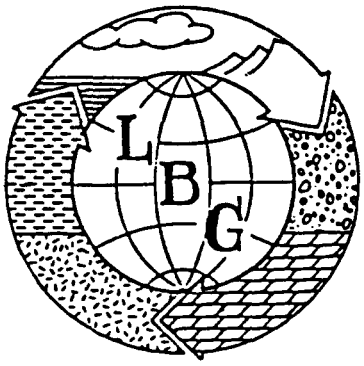
EM-Traverse	Inphase instrument reading	Quadraphase instrument reading
II-II	10	11
	12	12
	12	12
	14	17
	24	32
JJ-JJ	13	13
	12	11
	11	12
	11	12
	12	12
KK-KK	+100	+100
	12	12
	12	12
	11	11
	12	11
LL-LL	72	0
	48	48
	14	13
	10	12
	11	11
MM-MM	40	33
	42	40
	0	55
	38	33
	14	10
	15	14
	19	16
	18	20

APPENDIX
(continued)

OCCIDENTAL CHEMICAL CORPORATION
HOOKER/RUCO
HICKSVILLE, NEW YORK

Tabular Results of Eastern Study Area

EM-Traverse	Inphase instrument reading	Quadraphase instrument reading
NN-NN	34	32
	23	21
	32	33
	0	0
	21	20
	16	15
	15	14
	18	16
	20	18
00-00	0	45
	21	20
	32	40
	26	NR
	76	+100
	47	20
	22	13
	16	15
	18	13
	14	13



LEGGETTE, BRASHEARS & GRAHAM, INC.

72 Danbury Road
Wilton, CT 06897
(203) 762-1207
FAX (203) 762-8062